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AUTHOR Gardner, David C.; And Others
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ABSTRACT

Designed as supplemental material to on-going instruction in the vocational program, this teacher's manual to the Graphic Arts series is intended to accompany three dictionary booklets (available as CE 024 419, CE 024 420, and CE 024 740) for use by handicapped students to help them master the core vocabulary taught in the trade. Information presented in the manual includes an introduction to the materials, student outcomes, teaching suggestions, an alphabetical index to the vocabulary taught in the series, and use of the materials. Answer keys are given for the activity sheets and check-up pages which accompany each of the nine lessons in this set. "Master" copies of the activity sheets and check-ups are also provided. Informative materials on Project HIRE which developed these materials, occupational information, and an annotated bibliography of selected materials are appended. (This is one of five series of materials developed by Project HIRE. The two-volume final report of the project is available as CE 024 117 and CE 024 118. See Note for the other series.) (YLB)

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Graphic Arts Teacher's Manual

David C. Gardner
Grace Joely Beatty
Sue Allen Warren

Boston University
School of Education

Department of Business
and Career Education
765 Commonwealth Avenue
Boston, Massachusetts 02215

Project HIRE

U.S. DEPARTMENT OF HEALTH,
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CE 024 418

TEACHER'S MANUAL

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TEACHER'S MANUAL

I. INTRODUCTION

In our modern technological society, the beginning worker must master the core vocabulary of the job in order to communicate effectively with fellow workers, employers and customers. Many learning handicapped students have problems learning the language of the trade and thus may experience difficulty or even failure on the job. The purpose of this series of modules is to assist the learning handicapped student to master this core vocabulary.

The materials in this series were developed by interdisciplinary teams of vocational teachers, special education teachers and university faculty. The materials have been field-tested and refined. They are designed to help students who have learning problems master the core vocabulary of a specific vocational area. The modules are not intended to teach the student how to perform a task. They are meant to familiarize and reinforce the basic vocabulary taught in the trade. The words contained in each set of modules have been validated by a sample of employers on the following bases:

1. The words should be in frequent or moderate usage.
2. The words must be essential for job success for the beginning worker.

The modules are designed so that students, using the tapes that accompany each set, can work with minimal supervision, alone or in small groups. Each module is constructed so that it can be used by a resource room teacher who may have limited knowledge about the vocational area.

These materials are to be used as supplements to the on-going instruction in the vocational program.

The materials for each set of modules are:

1. Teacher's Manual which includes:
 - a. Supplementary learning activities
 - b. Progress checks
2. Three Picture Dictionary booklets, with accompanying tapes
3. Flash Card

II. QUESTIONS AND ANSWERS

- | | |
|--|---|
| 1. When should the materials be used? | 1. To provide <u>supplemental</u> instruction for special needs students who are having difficulty with technical terminology. |
| 2. Do the materials include all the technical vocabulary in the trade? | 2. No. Vocabulary words are primarily for entry-level jobs. |
| 3. Do the materials teach a student how to <u>perform</u> a specific task? | 3. No. The materials do not teach process. The purpose is to give students additional instruction and understanding of vocabulary. |
| 4. Can a special education teacher use this series without special training? | 4. Yes. The series has been designed for regular, special and resource room teachers. |
| 5. How do I begin? | 5. Familiarize yourself with the materials. Then pretest. Select the appropriate booklet. Assist student with Lesson 1. Most students can work alone with minimum assistance. |
| 6. What extra materials will I need? | 6. A cassette tape player. All other materials are provided in the packet. |
| 7. Can this series be used for group instruction? | 7. The materials will work best if used by students working individually or in small groups. |
| 8. Can I alter the recommended sequence? | 8. Yes, alteration of the sequence to individualize instruction is appropriate. |

9. How about evaluation?

9. Activity sheets are included at the end of each lesson. Progress checks are also included for each lesson.

III. STUDENT OUTCOMES

This series is designed to maximize success and minimize failure. Students should not be penalized for requiring numerous trials in order to reach the established criterion of 100% correct on the activity checks. Some students will master the individual lessons in one or two trials. Others will require more trials to criterion. REMEMBER, these materials were designed to help every student reach mastery!

After completing the series, the student should be able to:

1. Match each word/illustration to the appropriate definition.
2. Match each illustration to its appropriate definition.
3. Match each illustration to the appropriate word.

IV. CORE VOCABULARY

The following pages contain an alphabetized list of the terms in this series.

V. TEACHING SUGGESTIONS

A. Explanation

The materials prepared for these units have been designed to take advantage of certain principles of learning that are well known to teachers.

Among principles used in preparation for these materials are:

1. Learning is faster if materials are meaningful to students.
2. Learning is maintained best if learned material is used soon after it is learned.
3. For facts, learning is faster and better retained if practice is distributed during the learning time (rather than "crammed.")

GRAPHIC ARTS

Alphabetical Index

<u>Vocabulary Word</u>	<u>Book</u>	<u>Page</u>	<u>Vocabulary Word</u>	<u>Book</u>	<u>Page</u>
ainst the grain	I	23	offset press	II	50
prentice	II	72	pad	I	14
ckup	II	78	pad counter or spade	I	17
il bar	III	94	padding brush	I	18
nd	I	1	padding compound	I	13
nding post	I	41	padding press	I	16
nd paper	II	86	paginate	I	39
ok paper	II	88	parallel letter bolds	I	3
ilt-in wrench	III	110	parallel lines	I	2
ain delivery	III	92	perfect binding	I	43
ase	II	77	perforate	I	33
ip board	I	15	pile guides	II	58
ute delivery	III	93	plastic comb	I	44
eaning sheets	II	87	plastic comb binder	I	46
llate	I	27	plastic comb punch	I	45
nveyor tapes	III	102	plate cylinder	II	81
py	II	74	platen press	II	54
ver paper	II	85	printing plate	II	80
linder	II	53	pullout rollers	III	100
mpening system	III	107	ream	I	10
e cut	I	34	register	III	98
lly	II	64	register marks	III	97
may	I	26	register table	III	99
boss	I	36	retaining strips	III	103
n	I	28	right angle folds	I	4
edor	II	57	ring binder	I	47
ed rollers	III	105	rotary press	II	46
ed table	II	59	run	II	75
lt side	II	89	saddle stitch	I	31
at-bed cylinder press	II	55	score	I	37
lder	I	20	screen printing	II	52
lding bone	I	19	sheet-fed press	II	60
fiction binding	I	49	sheet separators	III	95
ther	I	7	sheetwise imposition	II	82
rain	I	21	short grain	I	25
ndwheel	III	106	side stitch	I	32
adstops	III	104	signature	I	5
ollow drill	I	42	single-color sheet-fed press	II	61
osition	II	79	single lever control	III	109
ak fountain	II	67	skid	II	65
aking system	II	66	skid rollers	III	101
serting	I	8	spiral binding	I	48
ob ticket	II	73	steel rule die	I	35
og	I	11	step and repeat imposition	II	84
ourneyman	II	71	stitch	I	29
minate	I	38	stitcher	I	30
utterpress	II	51	stream-fed press	II	62
ift	I	9	suction feet	III	96
ong grain	I	24	tip-in	I	6
ight latch	III	108	trim	I	12
umbering machine	I	40	type form	II	76

5 5.

GRAPHIC ARTS Alphabetical Index Continued

<u>Vocabulary Word</u>	<u>Book</u>	<u>Page</u>
shup	II	68
shup attachment	II	70
shup solution	II	69
termark	II	91
b-fed press	II	63
re side	II	90
th the grain	I	22
rk and turn imposition	II	83

4. Correct practice on recently learned materials increases retention.
5. Clustering facts to be learned improves retention.
6. Sequencing of materials to be learned improves learning speed; easy material first and difficult material later.
7. Overlearning (review) helps retention.
8. Knowing a part of the task prior to attempting the entire task can aid students to learn.

B. Procedures for Use of Materials

Because the materials have been developed with the principles cited above, it is requested that teachers use them as designed. Changes such as using Module II before Module I are appropriate if such change provides better coordination with vocational instruction. Using a part of Module I and a part of Module II, and selecting parts of workbooks to go with selections would not be appropriate, even if the teacher believed the student already knew some of the vocabulary items in a particular module; it is important for the student to find some of the words "too easy" along with the "too hard" ones; this can keep the student at work on a task that might otherwise be abandoned as too difficult. Furthermore, practice on materials the student already knows can aid in ensuring retention.

C. Steps in Using Materials

1. Getting the Student Started

- a. Make sure the tabs at the top of the cassette tape are punched out to prevent accidental erasure.
- b. Take the students to a table in a quiet area with the tape recorder, the flashcards, and the picture dictionary book(s).

- c. Be sure that the student knows: (1) how to insert the tape; (2) how to follow directions that are written in the dictionary and provided on the tape, and (3) how to use the small book. Show the student the box of flashcards so that they can be used when needed.

2. Explanations to Student

- a. Keep them at a minimum. Simply say in your own words that these materials are designed to help students learn technical vocabulary.
- b. Let the student know that you are aware that some words will be "too easy" and some "hard" but that you expect all to be done.
- c. During the first session for each student, observe for a few minutes to ensure that the student does not fail because of misunderstanding of the simple procedures for using the materials.

3. Letting Student Study

Go about one or more of your other numerous tasks until the student comes to tell you the words are learned.

4. Activity Sheets

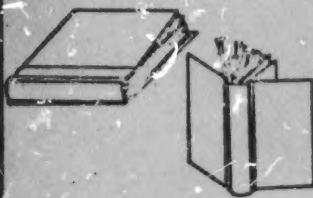
- a. Make sure the student understands how to do the ACTIVITY. After the explanation, the student should complete the pages ALONE without any help from you or the other students.
- b. Check the student's ACTIVITY sheets. If the score is 100% correct, go to 4c below. If the score is less than 100% correct, ask the student to use the tape and booklet again, doing the flashcards again also.

- c. If the student was 100% correct on the ACTIVITY, give the CHECK UP sheets for the relevant lessons. Make sure student understands the directions. Again, students should work ALONE.
- d. With the student watching, correct any errors on the CHECKUP SHEETS. Scores should be almost all correct if the ACTIVITY was 100% correct. If there is still trouble, the student probably needs to review the tape/booklet materials some more and then take the CHECKUP again.

ANSWER KEYS
TO
ACTIVITY PAGES

Name _____ Date _____

Match the picture and the meaning. Put the right number on the line beside the meaning.



bind

5

A large sheet of paper folded several times with many printed pages.



parallel line

2

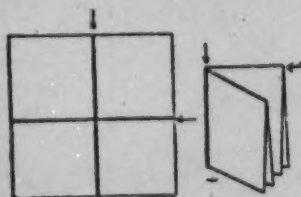
Two straight lines that look like railroad tracks.



parallel letter folds

1

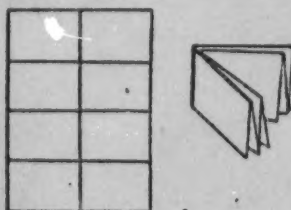
To fasten the pages of a book between covers.



right angle folds

6

To glue one page into a signature.



signature

3

Two folds in a piece of paper making parallel lines.

4

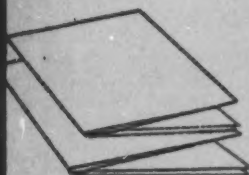
Two folds in a piece of paper that cross looking like a large plus sign.



tip-in

Name _____

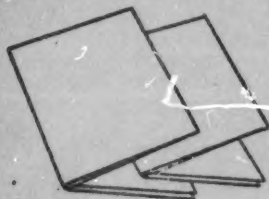
Date _____



gather

11

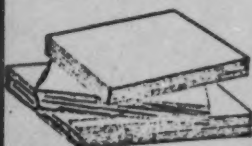
To straighten the edges of a lift of paper.



inserting

10

A pile of 500 sheets of paper.



lift

7

To put signatures in the proper order before binding.



ream

12

To cut a lift of paper to a special size.



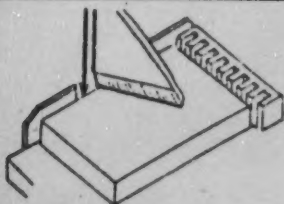
jog

8

Putting signatures inside each other.

9

A pile of papers, often 500 sheets of paper.



trim

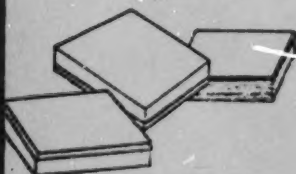
Name _____

Date _____

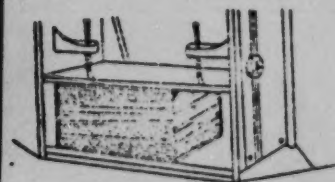
Match the picture and the meaning. Put the right number on the line beside the meaning.



1. padding compound



2. chip board



3. padding press



4. pad counter or spade

3

A machine that holds paper tightly as it is being glued together on one edge.

4

A tool used to measure the amount of paper put in a pad.

1

A rubber glue used to glue the edges of paper together.

2

A rough cardboard used as a backing on pads.



padding brush

7

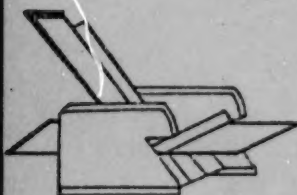
A machine that folds paper to any size.



folding bone

8

The direction of the fibers in a sheet of paper.



folder

5

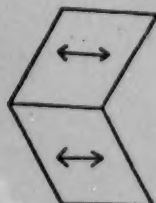
A brush used to put padding compound on the edge of paper held in a padding press.



grain

9

To go in the same direction as the fibers in a sheet of paper. Paper folds smoothly "with the grain."



6

A hand tool used to make tight folds on paper.

9. with the grain

Name _____

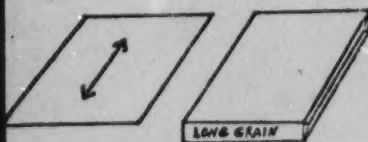
Date _____



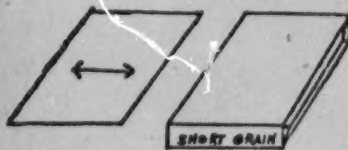
10. pad



11. against the grain



12. long grain



13. short grain

11

Not in the same direction as the lines in a sheet of paper. Paper does not fold smoothly this way.

12

The grain in a sheet of paper that goes from the top to the bottom of the page.

13

The grain in a sheet of paper that goes across the page from side to side.

10

A pile of papers that have been glued together on one edge.

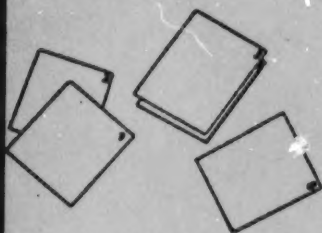
Name _____

Date _____

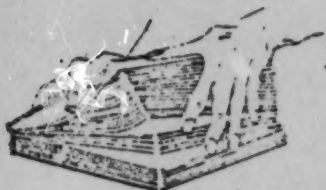
Match the picture and the meaning. Put the right number on the line beside the meaning.



dummy



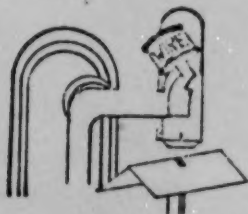
collate



fan



stitch



stitcher

4

A thin piece of wire used to fasten pages.

3

To put air between sheets of paper so they do not stick together.

1

A rough plan for a book showing the order of the pages.

5

A machine used to bind books.

2

To put the pages in the right order before binding.

ame _____

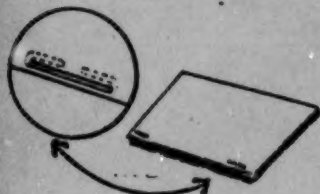
Date _____



. saddle stitch

7

To staple sheets together on the left side of the paper.



. side stitch

6

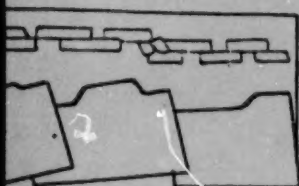
To fasten pages of a small book by stitching through the middle fold of the sheets.



. perforate

9

To cut paper into shapes.



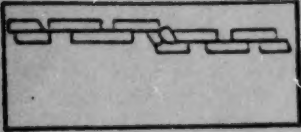
. die cut

8

To punch holes in paper.

Name _____

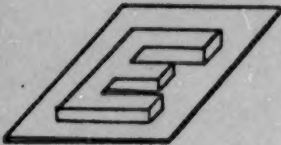
Date _____



0. steel rule die

11

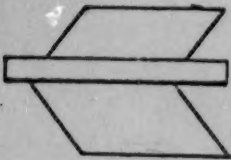
To put raised letters on the surface of paper without ink.



1. emboss

10

A tool used to die cut paper.



2. score

12

To put a mark into the surface of paper making it easy to fold.

Name _____ Date _____

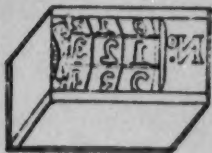
Match the picture and the meaning. Put the right number on the line beside the meaning.



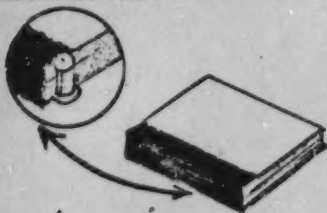
laminating machine



paginating machine



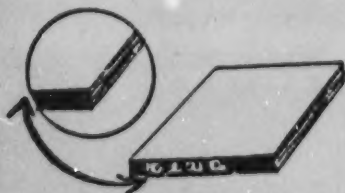
numbering machine



binding post



hollow drill



perfect binding

3

A machine that prints numbers in order.

6

When pages are held together only with glue.

5

A special tool that puts holes in paper.

2

To number pages.

4

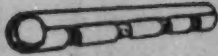
A brass post used to hold sheets of paper in a notebook.

1

To put a thin, clear coating on both sides of a printed sheet.

Name _____

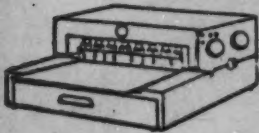
Date _____



. plastic comb

11

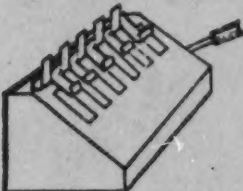
A wire coil used to bind paper. Extra pages cannot be added after binding.



. plastic comb punch

10

A notebook with rings that open so pages can be put in or taken out.



. plastic comb binder

7

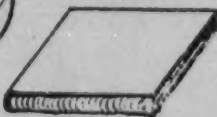
A row of fingers that go through holes in paper forming a circle to hold the pages together.



. ring binder

12

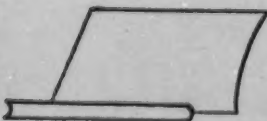
A folded plastic strip that slides along the edge of papers.



. spiral binding

8

A machine that puts special holes in paper for binding with a plastic comb.



. friction binding

9

A machine used to hold open the fingers on a plastic comb.

GRAPHIC ARTS II
Activity 5
Lesson 5

20

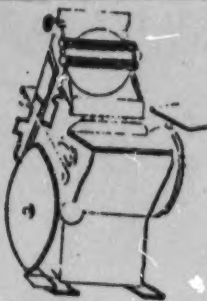
Name _____

Date _____

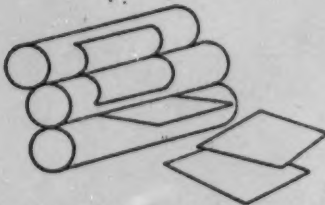
Match the picture and the meaning. Put the right number on the line beside the meaning.



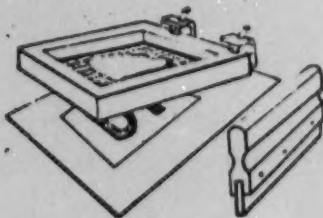
1. cylinder



2. platen press



3. offset press



4. screen printing



5. letterpress

5

A press using raised letters with ink on them to print. It is also called "crash" printing.

1

This looks like a big can.

3

A press that uses ink and water to print.

4

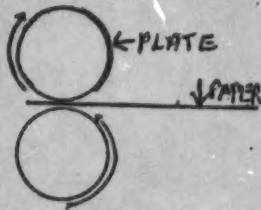
A way of printing where ink is pushed through holes in a screen.

2

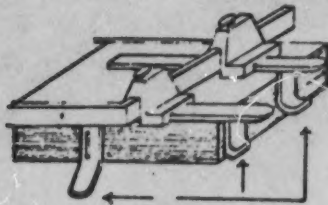
A press that prints by pressing paper between two flat surfaces.

Name _____

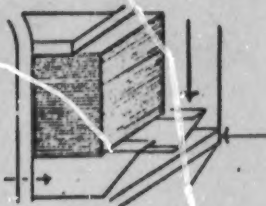
Date _____



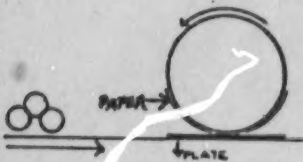
6. rotary press



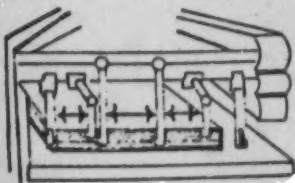
7. pile guides



8. feed table



9. flat-bed cylinder press



10. feeder

9

A press that prints by pressing paper between a flat surface and a cylinder.

10

The part of the printing press that picks up sheets of paper from a pile and slides them into the press.

6

A press that prints by pressing paper between two cylinders.

7

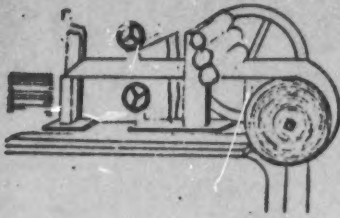
Bars that hold the pile of paper straight in the feeder.

8

Part of the feeder that holds the paper that is to be fed into the press.

Name _____

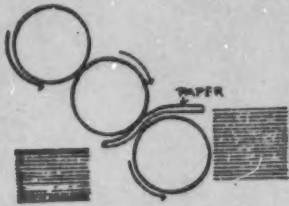
Date _____



1. web-fed press

14

A press that prints one sheet of paper at a time. It prints on one side of the sheet in one color.



12. sheet-fed press

11

A press that feeds paper into the press from a big roll.



13. stream-fed press

13

A press that feeds the paper so that the edges of the paper lie on top of each other.



14. single color sheet-fed press

12

A press that feeds paper into the press one sheet at a time.

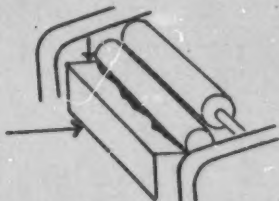
Name _____

Date _____

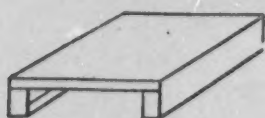
Match the picture and the meaning. Put the right number on the line beside the meaning.



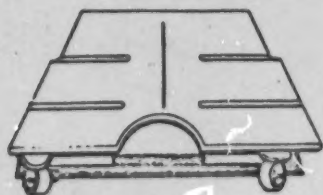
1. washup



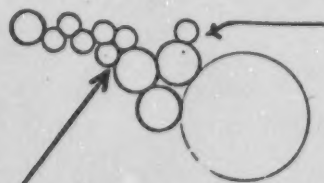
2. ink fountain



3. skid



4. dolly



5. inking system



6. washup solution

2

A part of the press that stores ink and feeds it to the inking system.

1

To clean the ink fountain and rollers of a press.

3

A wooden platform that paper is stacked upon.

6

A special liquid that makes ink watery so it can be cleaned from the press.

4

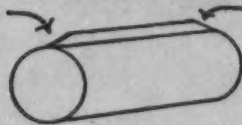
A platform on wheels that holds the sheets of paper as they come out of the press.

5

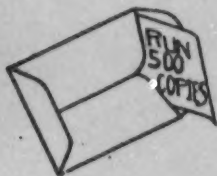
The part of the press that feeds the ink.

Name _____

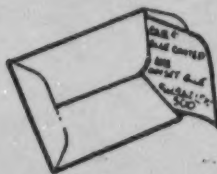
Date _____



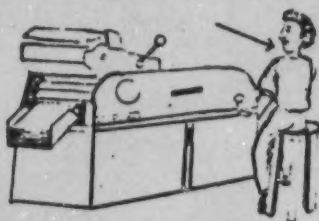
7. washup attachment



8. run



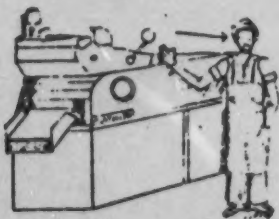
9. job ticket



10. apprentice



11. copy



12. journeyman

11

Anything that is to be printed on a printing press.

10

A beginner or learner.

8

The number of copies to be printed for a certain job.

12

A printer who has spent many years learning his trade.

9

A folder that gives all the directions needed to do a printing job.

7

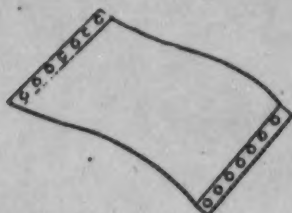
A tool used to clean the inking system on a press.

GRAPHIC ARTS II
Activity 7
Lesson 7

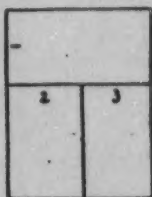
Name _____

Date _____

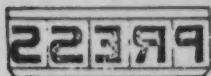
Match the picture and the meaning. Put the right number on the line beside the meaning.



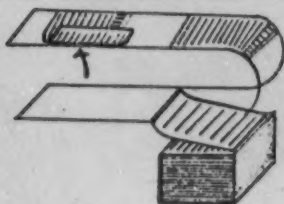
1. printing plate



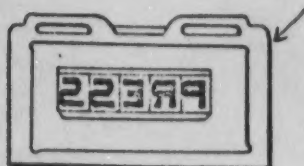
2. imposition



3. type form



4. backup



5. chase

4

To print on the back side of a sheet that has already been printed on the front side.

1

The part of the press that contains the material that is to be printed.

5

A metal frame that holds the type form in the letterpress.

2

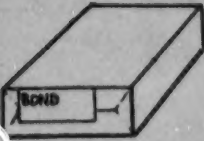
To arrange the pages to be printed on the signature so that the page numbers are in the right order when the signature is folded.

3

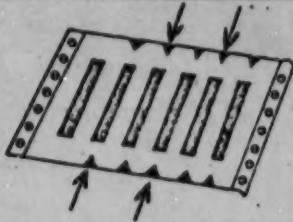
To put the letters together to make the words you want to print.

Name _____

Date _____



6. bond paper



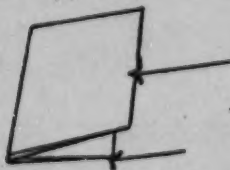
7. step and repeat imposition



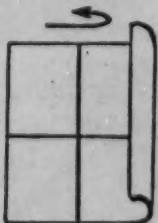
8. sheetwise imposition



9. plate cylinder



10. cover paper



11. work and turn imposition

10

A heavy paper used to cover the outside of catalogs and booklets.

7

To put many small copies of the same thing on one large sheet.

6

A very good paper used for writing and printing.

9

The printing plate goes on this roller on the press.

11

To print both sides of a page with one printing plate.

8

To print each side of a sheet using a separate printing plate.

Activity 7 (page 3)

Name _____

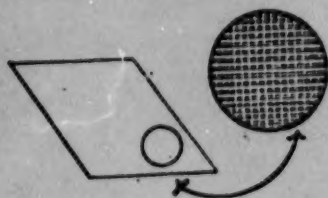
Date _____



12. watermark

13

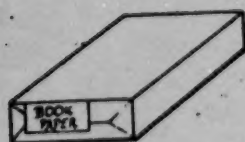
The rough side of the paper that does not print as well as the felt side.



13. wire side

12

A design pressed into some kinds of paper by the paper factory.



14. book paper

16

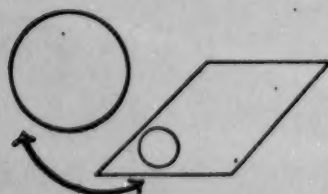
The smoothest side of the paper. This is the best printing surface.



15. coated paper

15

A high-quality paper with a smooth covering. This kind of paper holds color and prints well.

14

A paper used for printing schoolbooks.

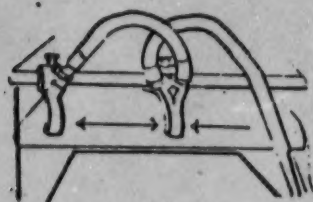
16. felt side

GRAPHIC ARTS III
Activity 8
Lesson 8

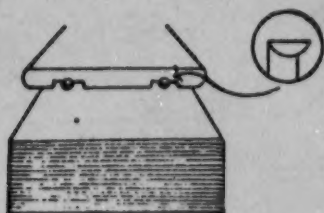
Name _____

Date _____

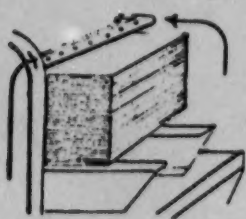
Match the picture and the meaning. Put the right number on the line beside the meaning.



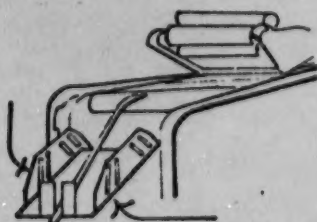
1. suction feet



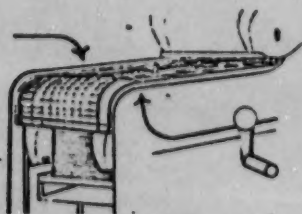
2. sheet separators



3. bail bar



4. chute delivery



5. chain delivery

5

A way sheets of paper are carried out of the press. Metal fingers on an endless chain grab each sheet and drop it in a pile.

3

A metal bar that rests on the top of the paper in the feeder. It controls the height of the pile.

1

Sucking tubes that pick up sheets of paper and move them from the feeder into the press.

2

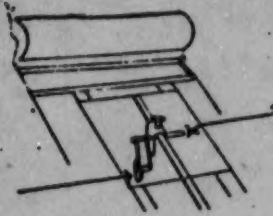
Thin metal fingers that let only one sheet of paper enter the press at a time. They are sometimes called "cat's whiskers."

4

A way sheets of paper come out of the press. Small wheels shoot each sheet out into a tray.

Name _____

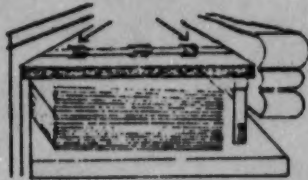
Date _____



6. skid rollers

10

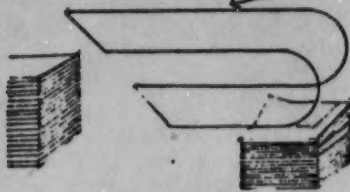
Marks placed on material to be printed that help the press operator put the printed copy in the right place.



7. pullout rollers

8

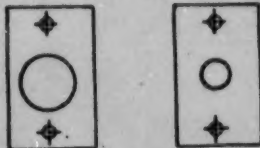
A table that connects the feeder and the printing unit. The sheet is put in place here before it goes into the printing unit.



8. register table

6

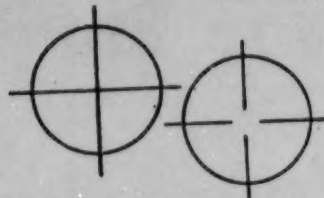
Small wheels that help move sheets down the feed table.



9. register

9

All sheets are put in exactly the same spot when they are printed.

1

Rubber wheels that move the sheet from the suction feet to the register table.

10. register marks

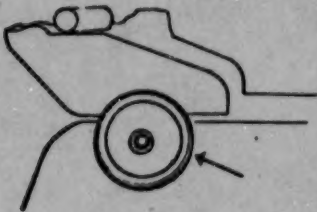
GRAPHIC ARTS III
Activity 9
Lesson 9

30

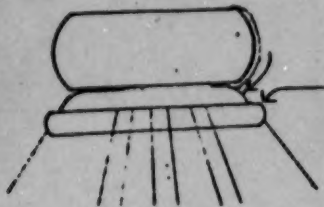
Name _____

Date _____

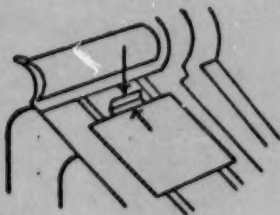
Match the picture and the meaning. Put the right number on the line beside the meaning.



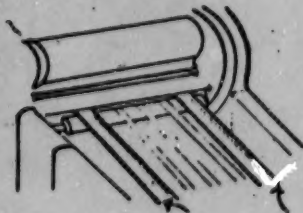
1. handwheel



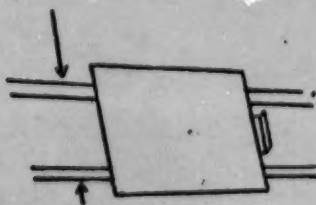
2. feed rollers



3. headstops



4. retaining strips



5. conveyor tapes

2

Wheels that move the sheet into the printing unit after the headstops drop out of the way.

1

A small wheel used to turn the press by hand.

4

Thin metal strips that hold the sheet onto the conveyor tapes.

5

Cloth belts that carry the paper across the feed table to the printing unit.

3

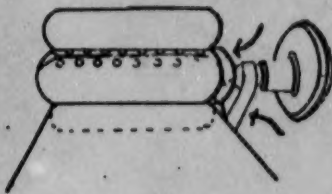
Small metal fingers at the end of the feed table. They stop the sheet before it goes into the printing unit.

Name _____

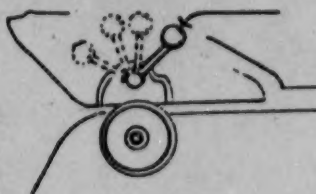
Date _____



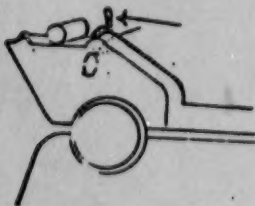
6. cleaning sheets



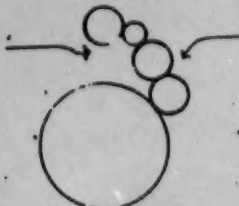
7. built-in wrench



8. single lever control



9. night latch



10. dampening system

7

A tool used to move the printing cylinder.

6

Sheets of paper used to clean the press without removing the ink rollers.

10

A set of rollers covered with cloth that feeds water to the printing plate.

9

A lever you pull when the printing press is shut down. It keeps the rollers from resting against each other tightly.

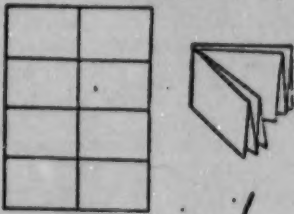
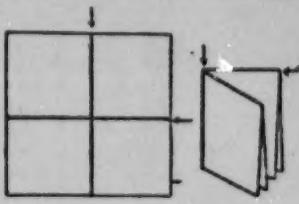
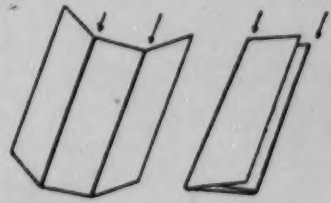
8

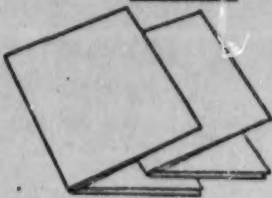
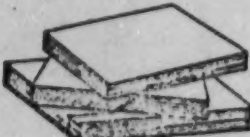
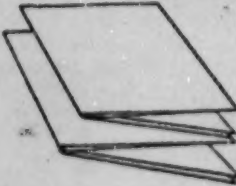
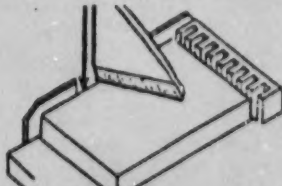
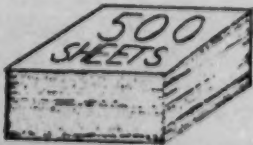
A lever that works the night latch, ink, dampening system, and feed control.

ANSWER KEYS
TO
CHECKUP PAGES

Name _____ Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

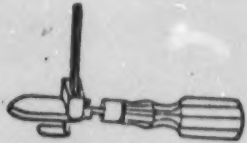
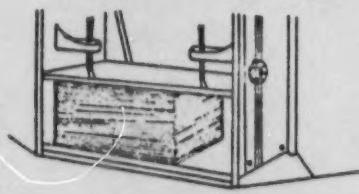
<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>6</u> bind	 1	<u>1</u> A large sheet of paper folded several times with many printed pages.
<u>5</u> parallel line	 2	<u>5</u> Two straight lines that look like railroad tracks.
<u>4</u> parallel letter folds	 3	<u>6</u> To fasten the pages of a book between covers.
<u>3</u> right angle folds	 4	<u>2</u> To glue one page into a signature.
<u>1</u> signature	 5	<u>4</u> Two folds in a piece of paper making parallel lines.
<u>2</u> tip-in	 6	<u>3</u> Two folds in a piece of paper that cross looking like a large plus sign.

WORD	PICTURE	MEANING
<u>9</u> gather	 7	<u>11</u> To straighten the edges of a lift of paper.
<u>7</u> inserting	 8	<u>12</u> A pile of 500 sheets of paper.
<u>8</u> lift	 9	<u>9</u> To put signatures in the proper order before binding.
<u>12</u> ream	 10	<u>10</u> To cut a lift of paper to a special size.
<u>11</u> jog	 11	<u>7</u> Putting signatures inside each other.
<u>10</u> trim	 12	<u>8</u> A pile of papers, often 500 sheets of paper.

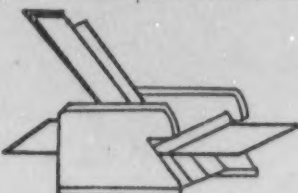
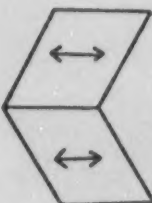
Name _____

Date _____

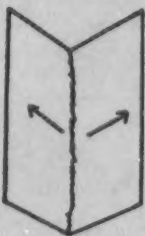
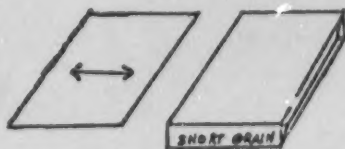
Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>2</u> padding compound	 1	<u>4</u> A machine that holds paper tightly as it is being glued together on one edge.
<u>1</u> pad	 2	<u>3</u> A tool used to measure the amount of paper put in a pad.
<u>5</u> chip board	 3	<u>2</u> A rubber glue used to glue the edges of paper together.
<u>4</u> padding press	 4	<u>5</u> A rough cardboard used as a backing on pads.
<u>3</u> pad counter or spade	 5	<u>1</u> A pile of papers that have been glued together on one edge.

Name _____ Date _____

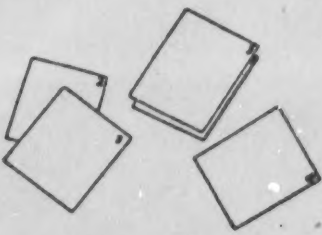
WORD	PICTURE	MEANING
10 padding brush		7 A machine that folds paper to any size.
9 folding bone	6	6 The direction of the fibers in a sheet of paper.
7 folder		10 A brush used to put padding compound on the edge of paper held in a padding press.
6 grain		8 To go in the same direction as the fibers in a sheet of paper. Paper folds smoothly "with the grain."
8 with the grain		9 A hand tool used to make tight folds on paper.
		

Name _____ Date _____

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>12</u> long grain	 	<u>11</u> Not in the same same direction as the lines in a sheet of paper. Paper does not fold smoothly this way.
<u>13</u> short grain		<u>13</u> The grain in a sheet of paper that goes across the page from side to side.
<u>11</u> against the	  	<u>12</u> The grain in a sheet of paper that goes from the top to the bottom of the page.

Name _____ Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>1</u> dummy	 1	<u>4</u> A thin piece of wire used to fasten pages.
<u>5</u> collate	 2	<u>2</u> To put air between sheets of paper so they do not stick together.
<u>2</u> fan	 3	<u>1</u> A rough plan for a book showing the order of the pages.
<u>4</u> stitch	 4	<u>3</u> A machine used to bind books.
<u>3</u> stitcher	 5	<u>5</u> To put the pages in the right order before binding.

Name _____

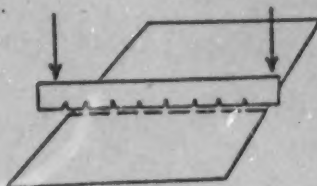
Date _____

WORD

PICTURE

MEANING

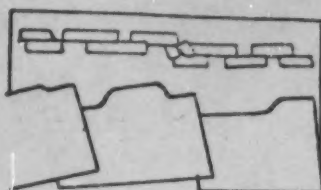
8 saddle stitch



6

9 To staple sheets together on the left side of the paper.

9 side stitch



7

8 To fasten pages of a small book by stitching through the middle fold of the sheets.

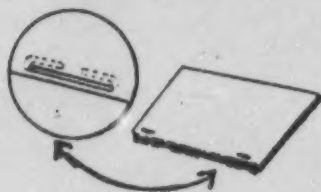
6 perforate



8

7 To cut paper into shapes.

7 die cut

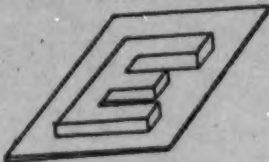
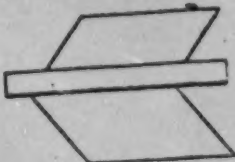
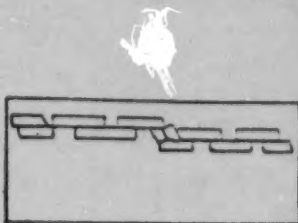


9

6 To punch holes in paper.

Name _____

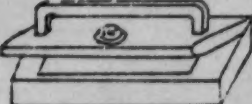
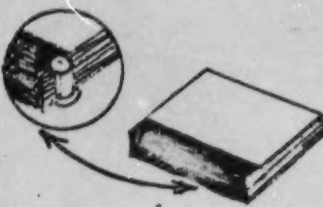
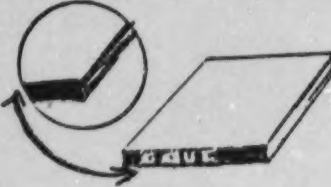
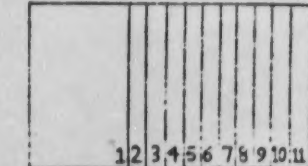
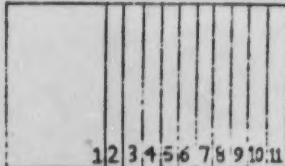
Date _____

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>12</u> steel rule die		<u>10</u> To put raised letters on the surface of paper without ink.
<u>10</u> emboss		<u>12</u> A tool used to die cut paper.
<u>11</u> score		<u>11</u> To put a mark into the surface of paper making it easy to fold.

Name _____

Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

WORD	PICTURE	MEANING
<u>2</u> laminate	 1	<u>3</u> A machine that prints numbers in order.
<u>6</u> paginate	 2	<u>5</u> When pages are held together only with glue.
<u>3</u> numbering machine	 3	<u>1</u> A special tool that puts holes in paper.
<u>4</u> binding post	 4	<u>6</u> To number pages.
<u>1</u> hollow drill	 5	<u>4</u> A brass post used to hold sheets of paper in a notebook.
<u>5</u> perfect binding	 6	<u>2</u> To put a thin, clear coating on both sides of a printed sheet.
	 12 3 4 5 6 7 8 9 10 11	

Name _____

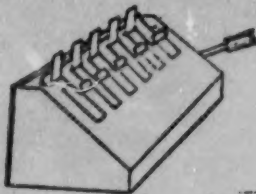
Date _____

WORD

PICTURE

MEANING

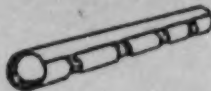
8 plastic comb



7

10 A wire coil used to bind paper. Extra pages cannot be added after binding.

12 plastic comb punch



8

9 A notebook with rings that open so pages can be put in or taken out.

7 plastic comb binder



9

8 A row of fingers that go through holes in paper forming a circle to hold the pages together.

9 ring binder



10

11 A folded plastic strip that slides along the edge of papers.

10 spiral binding

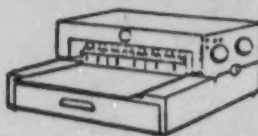
12 A machine that puts special holes in paper for binding with a plastic comb.

11 friction binding



11

7 A machine used to hold open the fingers on a plastic comb.



12

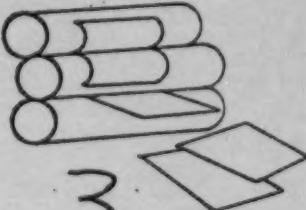
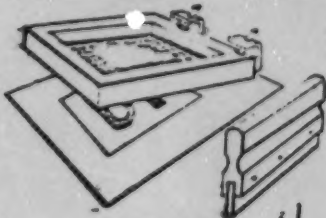
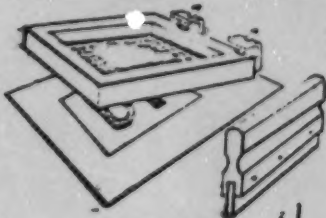
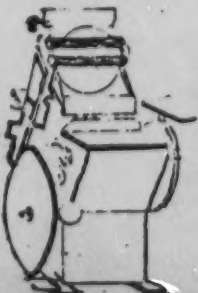
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GRAPHIC ARTS II
 Checkup 5
 Lesson 5

Name _____

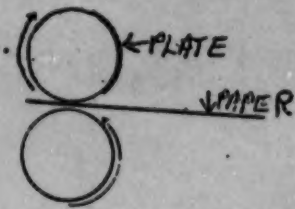
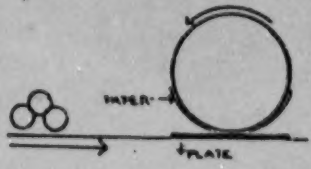
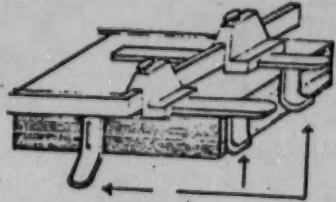
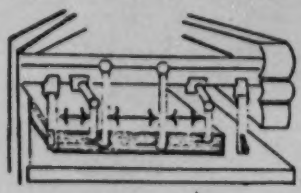
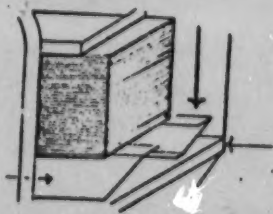
Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>1</u> cylinder	 1	<u>2</u> A press using raised letters with ink on them to print. It is also called "crash" printing.
<u>5</u> platen press	 2	<u>1</u> This looks like a big can.
<u>3</u> offset press	 3	<u>3</u> A press that uses ink and water to print.
<u>4</u> screen printing	 4	<u>4</u> A way of printing where ink is pushed through holes in a screen.
<u>2</u> letterpress	 4	<u>5</u> A press that prints by pressing paper between two flat surfaces.
	 5	

Name _____

Date _____

WORD	PICTURE	MEANING
<u>6</u> rotary press		<u>7</u> A press that prints by pressing paper between a flat surface and a cylinder.
<u>8</u> pile guides	<u>6</u>	
<u>10</u> feed table		<u>9</u> The part of the printing press that picks up sheets of paper from a pile and slides them into the press.
<u>7</u> flat-bed cylinder press		<u>6</u> A press that prints by pressing paper between two cylinders.
<u>9</u> feeder	<u>8</u>	
		<u>8</u> Bars that hold the pile of paper straight in the feeder.
	<u>9</u>	
		<u>10</u> Part of the feeder that holds the paper that is to be fed into the press.
	<u>10</u>	

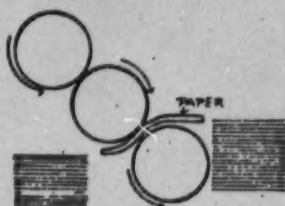
Checkup 5 (page 3)

Name _____

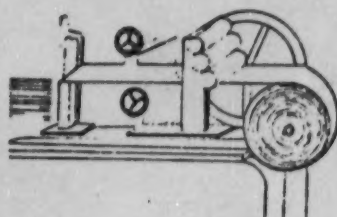
Date _____

WORDPICTUREMEANING13 web-fed press14 A press that prints one sheet of paper at a time. It prints on one side of the sheet in one color.12 sheet-fed press

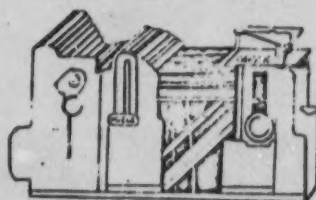
11

13 A press that feeds paper into the press from a big roll.11 stream-fed press11 A press that feeds the paper so that the edges of the paper lie on top of each other.14 single color sheet-fed press

12

12 A press that feeds paper into the press one sheet at a time.

13



14

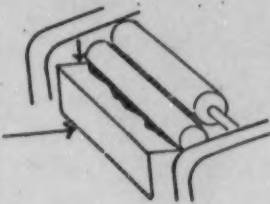
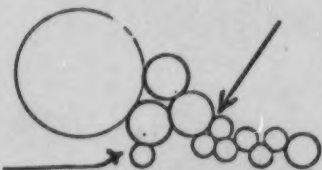
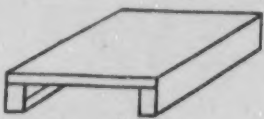
GRAPHIC ARTS II
 Checkup 6
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Name _____

Date _____

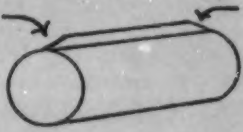
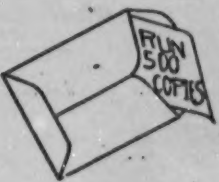
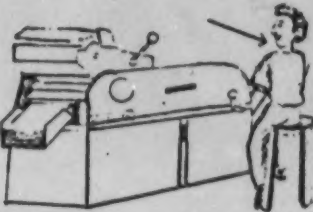
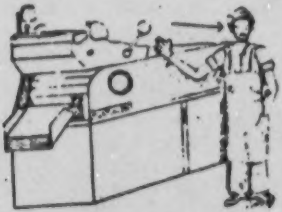
Put the number of the picture next to the word AND next to the meaning.
 The first one is done for you.

WORD	PICTURE	MEANING
<u>2</u> washup	 1	<u>3</u> A part of the press that stores ink and feeds it to the inking system.
<u>3</u> ink fountain	 2	<u>2</u> To clean the ink fountain and rollers of a press.
<u>5</u> skid	 3	<u>5</u> A wooden platform that paper is stacked upon.
<u>6</u> dolly	 4	<u>1</u> A special liquid that makes ink watery so it can be cleaned from the press.
<u>4</u> inking system	 5	<u>6</u> A platform on wheels that holds the sheets of paper as they come out of the press.
<u>1</u> washup solution	 6	<u>4</u> The part of the press that feeds the ink.

Checkup 6 (page 2)

Name _____

Date _____

WORD	PICTURE	MEANING
<u>8</u> washup attachment	 7	<u>7</u> Anything that is to be printed on a printing press.
<u>9</u> run	 8	<u>10</u> A beginner or learner
<u>11</u> job ticket	 9	<u>9</u> The number of copies to be printed for a certain job.
<u>10</u> apprentice	 10	<u>12</u> A printer who has spent many years learning his trade.
<u>7</u> copy	 11	<u>11</u> A folder that gives all the directions needed to do a printing job.
<u>12</u> journeyman	 12	<u>8</u> A tool used to clean the inking system on a press.

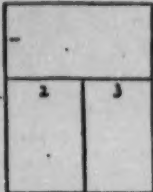
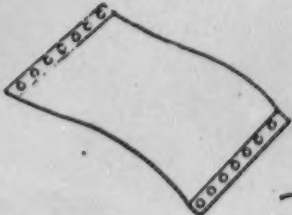
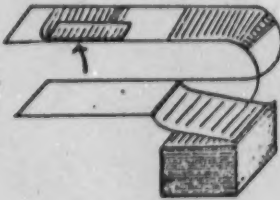
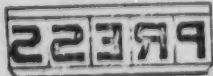
GRAPHIC ARTS II
Checkup 7
Lesson 7

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Name _____

Date _____

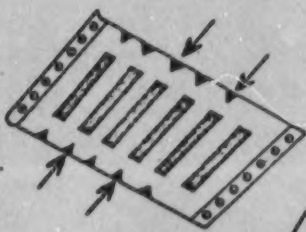
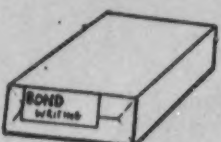
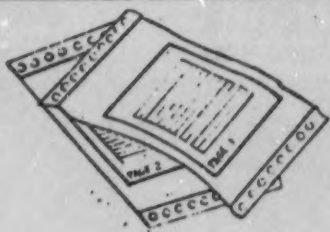
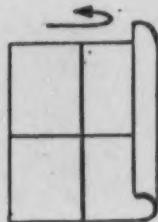
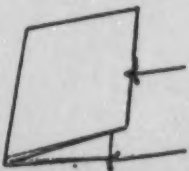
Put the number of the picture next to the word AND next to the meaning.
The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
<u>3</u> printing plate		<u>4</u> To print on the back side of a sheet that has already been printed on the front side.
<u>1</u> imposition		<u>3</u> The part of the press that contains the material that is to be printed.
<u>5</u> type form		<u>2</u> A metal frame that holds the type form in the letterpress.
<u>4</u> backup		<u>1</u> To arrange the pages to be printed on the signature so that the page numbers are in the right order when the signature is folded.
<u>2</u> chase		<u>5</u> To put the letters together to make the words you want to print.

Checkup 7 (page 2)

Name _____

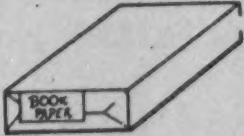
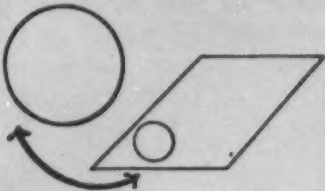
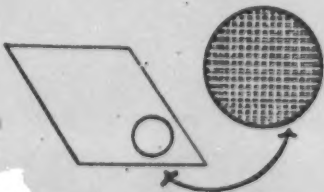
Date _____

WORD	PICTURE	MEANING
<u>7</u> bond paper	 6	<u>11</u> A heavy paper used to cover the outside of catalogs and booklets.
<u>6</u> step and repeat imposition	 7	<u>6</u> To put many small copies of the same thing on one large sheet.
<u>8</u> sheetwise imposition	 8	<u>7</u> A very good paper used for writing and printing.
<u>9</u> plate cylinder	 9	<u>9</u> The printing plate goes on this roller on the press.
<u>11</u> cover paper	 9	<u>10</u> To print both sides of a page with one printing plate.
<u>10</u> work and turn imposition	 10	<u>8</u> To print each side of a sheet using a separate printing plate.
	 11	

Checkup 7 (page 3)

Name _____

Date _____

WORD	PICTURE	MEANING
<u>14</u> watermark	 12	<u>16</u> The rough side of the paper that does not print as well as the felt side.
<u>16</u> wire side	 13	<u>14</u> A design pressed into some kinds of paper by the paper factory.
<u>12</u> book paper	 14	<u>13</u> The smoothest side of the paper. This is the best printing surface.
<u>15</u> coated paper	 15	<u>15</u> A high-quality paper with a smooth covering. This kind of paper holds color and prints well.
<u>13</u> felt side	 16	<u>12</u> A paper used for printing schoolbooks.

GRAPHIC ARTS III

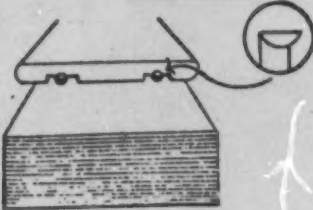
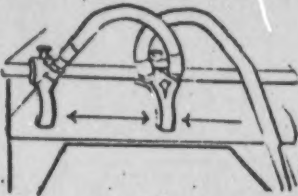
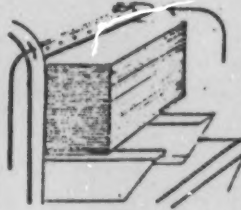
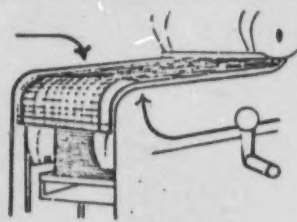
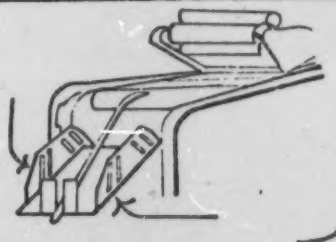
Checkup 8

Lesson 8

Name _____

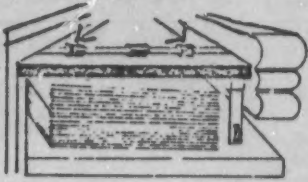
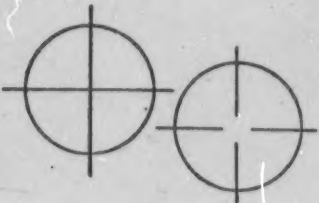
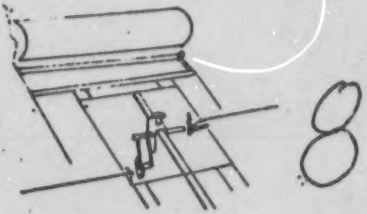
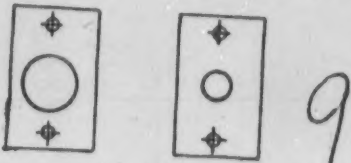
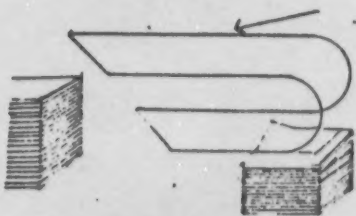
Date _____

Put the number of the picture next to the word AND next to the meaning.
The first one is done for you.

WORD	PICTURE	MEANING
<u>2</u> suction feet	 1	<u>4</u> A way sheets of paper are carried out of the press. Metal fingers on an endless chain grab each sheet and drop it in a pile.
<u>1</u> sheet separators	 2	<u>3</u> A metal bar that rests on the top of the paper in the feeder. It controls the height of the pile.
<u>3</u> bail bar	 3	<u>2</u> Sucking tubes that pick up sheets of paper and move them from the feeder into the press.
<u>5</u> chute delivery	 4	<u>1</u> Thin metal fingers that let only one sheet of paper enter the press at a time. They are sometimes called "cat's whiskers."
<u>4</u> chain delivery	 5	<u>5</u> A way sheets of paper come out of the press. Small wheels shoot each sheet out into a tray.

Name _____

Date _____

WORD	PICTURE	MEANING
<u>8</u> skid rollers		<u>7</u> Marks placed on material to be printed that help the press operator put the printed copy in the right place.
<u>6</u> pullout rollers	<u>6</u>	
<u>10</u> register table		<u>10</u> A table that connects the feeder and the printing unit. The sheet is put in place here before it goes into the printing unit.
<u>9</u> register		<u>8</u> Small wheels that help move sheets down the feed table.
<u>7</u> register marks		<u>9</u> All sheets are put in exactly the same spot when they are printed.
		<u>6</u> Rubber wheels that move the sheet from the suction feet to the register table.
	<u>10</u>	

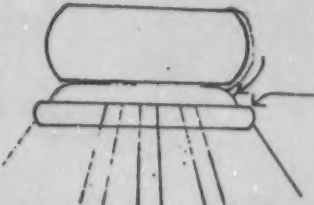
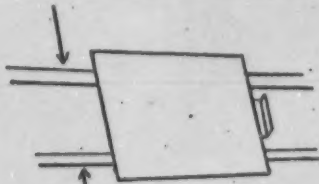
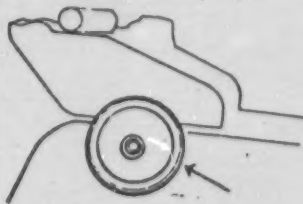
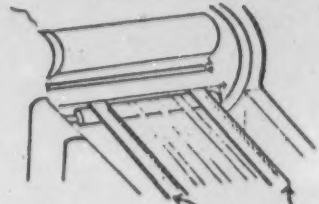
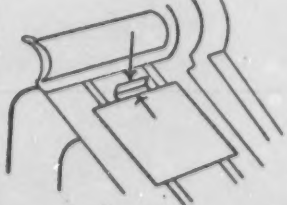
GRAPHIC ARTS III
Checkup 9
Lesson 9

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Name _____

Date _____

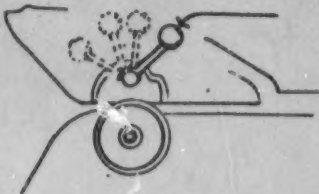
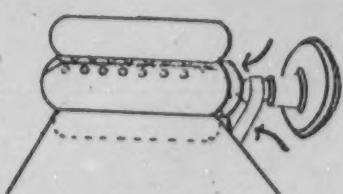
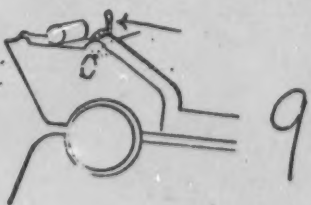
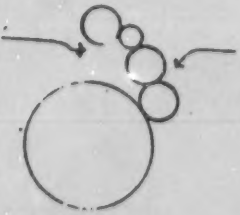
Put the number of the picture next to the word AND next to the meaning.
The first one is done for you.

WORD	PICTURE	MEANING
<u>3</u> handwheel		<u>1</u> Wheels that move the sheet into the printing unit after the headstops drop out of the way.
<u>1</u> feed rollers		<u>3</u> A small wheel used to turn the press by hand.
<u>5</u> headstops		<u>2</u> Cloth belts that carry the paper across the feed table to the printing unit.
<u>4</u> retaining strips		<u>4</u> Thin metal strips that hold the sheet onto the conveyor tapes.
<u>2</u> conveyor tapes		<u>5</u> Small metal fingers at the end of the feed table. They stop the sheet before it goes into the printing unit.

Checkup 9 (page 2)

Name _____

Date _____

WORD	PICTURE	MEANING
<u>7</u> cleaning sheets	 6	<u>8</u> A tool used to move the printing cylinder.
<u>8</u> built-in wrench	 7	<u>7</u> Sheets of paper used to clean the press without removing the ink rollers.
<u>6</u> single lever control	 8	<u>10</u> A set of rollers covered with cloth that feeds water to the printing plate.
<u>9</u> night latch	 9	<u>6</u> A lever that works the night latch, ink, dampening system, and feed control.
<u>10</u> dampening system	 10	<u>9</u> A lever you pull when the printing press is shut down. It keeps the rollers from resting against each other tightly.

APPENDIX A

PROJECT DESCRIPTION AND PERSONNEL

Project HIRE

PROJECT NUMBER: 498AH70309

PROJECT TITLE: A Curriculum Management System for Instructing the Handicapped (Project HIRE)

GRANT PERIOD: August 15, 1977 to June 30, 1979

PROJECT

PERSONNEL: Dr. David C. Gardner, Director
Chairman, Department of Business and Career Education
Boston UniversityDr. Grace Joely Cowan, Associate Director
Senior Research Associate, Department of Business and
Career Education
Boston UniversityDr. Sue Allen Warren, Project Psychologist
Chairman, Department of Special Education
Boston University

UNIVERSITY

STAFF:

Robert Cunningham, Research Assistant
Sheila A. Glynn, Administrative Assistant
Kim R. Gordon, Senior Research Assistant
Jeanne M. Griffith, Secretary
Mary L. Higgins, Senior Research Assistant
David M. Smith, Research AssistantCURRICULUM TEAMS: Blue Hills Regional Vocational Technical High SchoolSidney Barnsley
William J. Coughlan
Ronald F. LinariJoseph P. Keefe Technical SchoolRobert Leonard
James Lynch
Stephen J. McIntosh
William A. Walden, Sr.Minuteman Regional Vocational Technical SchoolJanis Broskie
Helen T. Gillam
Richard H. Lee
Gerald H. Less
Pamela A. McInness
James Amara
Nancy McGrath

Whittier Regional Vocational Technical High School

Margaret DeRoche
Nellie Fichera
Kim R. Gordon
Mary L. Higgins
George A. Korn
Patricia Lavin
C. William Leuders

PROJECT OBJECTIVES

The purpose of the project was to develop a curriculum management system for instructing handicapped students enrolled in vocational high schools. A team from each of four vocational technical high schools, consisting of two special needs or resource-room teachers, two vocational teachers, and the director of special needs, worked with university personnel to develop materials in specific vocational areas. Project objectives were to:

1. Develop and test new strategies and standards for utilizing teams of vocational education and special education personnel, supported and directed by university specialists, in the planning, development, and testing of curriculum materials for use in resource rooms as back-up instructional materials for the regular vocational program.
2. Design, develop, field test, and refine these curriculum materials.
3. Disseminate both nationally and locally the findings of the project, including the materials and a description of the management process.

PROJECT PRODUCTS

1. Final Report
2. Curriculum Management Handbook
3. Curriculum Materials

1) Module Areas:

Allied Health

Teacher's Manual

Student Dictionaries #1, #2, #3

Arc Welding

Teacher's Manual

Student Dictionaries #1, #2, #3

Culinary Arts

Teacher's Manual

Student Dictionaries #1, #2, #3

Graphic Arts

Teacher's Manual

Student Dictionaries #1, #2, #3

Upholstery

Teacher's Manual

Student Dictionaries #1, #2, #3

2) Cassette Tapes for Each Lesson

3) Flash Cards

APPENDIX B
SUMMARY OF FIELD TESTING

SUMMARY OF FIELD TESTING

Five regional vocational technical high schools in Massachusetts participated in the preparation and field testing of the Project HIRE materials in the following trade areas: (1) Allied Health, (2) Arc Welding, (3) Culinary Arts, (4) Graphic Arts, and (5) Upholstery.

A total of 87 students were involved in the field testing of the materials; 52 learning handicapped students, who received instruction with the Project HIRE materials, and 35 regular students enrolled in the same vocational programs who were used as a comparison group. The regular students did not use the HIRE materials but received the same instruction in the vocational shop.

Both the learning handicapped students and the regular students took the same vocabulary tests at the beginning of the field testing period. The learning handicapped students then used the HIRE materials in addition to receiving the in-shop and related instruction with the regular students. Both groups were tested again on the same vocabulary terms at the end of the field testing period. The learning handicapped students made statistically significant progress on the vocabulary words while the regular students did not. There were significant differences between the two groups, with 65% of the learning handicapped students achieving 100% mastery of the terms while none of the regular students achieved 100% mastery.

Of the learning handicapped students, both learning disabled students and educable mentally retarded students made significant gains on the number of words mastered although more learning disabled students reached 100%

mastery. Most of the learning handicapped students were able to get 100% on a lesson with less than 2 trials; however, the educable mentally retarded students sometimes needed more trials.

A complete and detailed analysis of the field testing procedures and findings is contained in Volume I of the Final Report of Project HIRE, entitled Vocational Curriculum Modification: Teaching Technical Language to Learning Handicapped Students. In addition, a complete description of the curriculum management system used to develop the materials is contained in Volume 2 of the Final Report of Project HIRE, entitled Practical Approaches to Curriculum Development: A Management Handbook. Both volumes are available through the ERIC system and are listed in Resources in Education

APPENDIX C
OCCUPATIONAL INFORMATION AND ENTRY-LEVEL JOBS

APPENDIX C

OCCUPATIONAL INFORMATION IN GRAPHIC ARTS¹Occupational Outlook

Occupations involved in the graphic arts are extensive. This series of materials deals with two specific areas: printing press operator and assistant and bindery worker.

More than half of the press operators and assistants work in commercial printing shops and publishing companies. Many others work in newspaper plants. Some work in banks, insurance companies, manufacturers, and other organizations that do their own printing. Employment is concentrated in large cities.

Although more press operators will be needed because of the increase in printed materials, employment of press operators is expected to increase more slowly than average. A growing number of openings will be found in industries other than printing as they do more of their own work instead of contracting it out to printing firms.

Wages are higher than average for nonsupervisory workers and many press operators and assistants work night shifts and receive extra pay.

Bindery workers perform such tasks as fastening sheets or signatures together using a machine stapler and feeding signatures into various machines for stitching, folding, or gluing operations. Many work in book-binding shops, or in the bindery department of publishing firms, printing plants, and large libraries. Some work for the Federal Government. Employment is concentrated in large metropolitan centers.

1. U.S. Department of Labor, Bureau of Labor Statistics. Occupational Outlook Handbook, 1978-79 Edition. Bulletin No. 1955.

Employment of bindery workers is expected to increase more slowly than average. Workers need to be familiar with the new technology in the field.

Wage rates for bindery workers tend to be average for nonsupervisory personnel. Accuracy, patience, neatness, and good eyesight are needed. Good finger dexterity is essential for those who count, insert, paste, and fold.

APPENDIX C Continued

Entry-Level Positions

This section contains entry-level positions for press operators and assistants and bindery workers. Short job descriptions and D.O.T. codes are included.

JOB TITLE	D.O.T. CODE	DUTIES
Assistant Press Operator	651.585-010	Assists press operator to: 1. Make ready, operate, maintain press. 2. Adjust machine parts. 3. Lifts and positions roll of paper in feed mechanism. 4. Remove loaded skid of printed material. 5. Fill fountains. 6. Tend press in absence of operator. 7. Observe mechanical operation and gauges and make adjustments or notify press operator of malfunction. 8. Assist in lubrication of press. 9. Assist in removing and replacing worn rollers. 10. Cleans ink and distributing rollers. 11. Cleans press and work area. 12. Keeps daily time, production, and material usage reports. 13. May assist with printing plates. 14. May be required to serve apprenticeship.
Bindery Worker	653.685-010	Uses machine to: 1. Punches holes in paper sheets with machine. 2. Stamps numbers on sheets by hand or machine. 3. Creases and compresses signatures. 4. Tends machine that inserts wire or plastic binding strips into holes. 5. Feeds material into machines for stitching, folding, ruling, roughing, indexing, and gluing operations. 6. Removes, stacks, and packs printed material as it accumulates on delivery table. 7. Examines printed material to detect errors.

APPENDIX C Continued

JOB TITLE	D.O.T. CODE	DUTIES
Print Shop Helper	979.684-026	1. Assists workers in print shop. 2. Moves materials and supplies. 3. Assists with presses. 4. Keeps presses supplied with stock. 5. Prepares equipment and cleans after use. 6. Covers dampening rolls. 7. Counts, stacks, and wraps finished printed materials. 8. Performs other duties as described under HELPER (see next page).

APPENDIX C Continued

GENERIC JOB DESCRIPTIONS

APPRENTICE (any ind.)

A worker who learns, according to written or oral contractual agreement, a recognized skilled craft or trade requiring one or more years of on-the-job training through job experience supplemented by related instruction, prior to being considered a qualified skilled worker. High school or vocational school education is often a prerequisite for entry into an apprenticeship program. Provisions of apprenticeship agreement regularly include length of apprenticeship; a progressive scale of wages; work processes to be taught; and amount of instruction in subjects related to the craft or trade, such as characteristics of materials used, physics, mathematics, estimating, and blueprint reading. Apprenticeability of a particular craft or trade is best evidenced by its acceptability for registration as a trade by a State apprenticeship agency or the Federal Bureau of Apprenticeship and Training. Generally, where employees are represented by a union, apprenticeship programs come under the guidance of joint apprenticeship committees composed of representatives of the employers or the employer association and representatives of the employees. These committees may determine need for apprentices in a locality and establish minimum apprenticeship standards of education, experience, and training. In instances where committees do not exist, apprenticeship agreement is made between apprentice and employer, or an employer group. The title, APPRENTICE, is often loosely used as a synonym for beginner, HELPER (any ind.), or TRAINEE (any ind.). This practice is technically incorrect and leads to confusion in determining what is meant. Typical classifications for apprentices are BLACKSMITH APPRENTICE (forging); MACHINIST APPRENTICE (mach. shop); and PLUMBER APPRENTICE (const.).

HELPER (any ind.)

A worker who assists another worker, usually of a higher level of competence or expertness, by performing a variety of duties, such as furnishing another worker with materials, tools, and supplies; cleaning work area, machines, and equipment; feeding or offbearing machines, holding materials or tools; and performing other routine duties. A HELPER (any ind.) may learn a trade but does so without an agreement with employer that such is the purpose of their relationship. Consequently, the title HELPER (any ind.) is sometimes used as synonym for APPRENTICE (any ind.), a practice that is incorrect technically. A worker whose duties are limited or restricted to one type of activity, such as moving materials from one department to another, feeding machines, removing products from conveyors or machines, or cleaning machines or work areas is not technically a HELPER (any ind.) and is classified according to duties performed as MATERIAL HANDLER (any ind.); MACHINE CLEANER (any ind.); CLEANER, INDUSTRIAL (any ind.). A worker who performs a variety of duties to assist another worker is a HELPER (any ind.) technically and is classified according to worker assisted as BRICKLAYER HELPER (const.); DRY-CLEANER HELPER (clean., dye., & press.).

APPENDIX D
ANNOTATED BIBLIOGRAPHY

ANNOTATED BIBLIOGRAPHY

This is an annotated bibliography of selected materials that can be used by a special education teacher to supplement general vocabulary and technical vocabulary instruction.

Vocabulary Materials in Graphic Arts

1. You've Got It, Danny! Language Development in Graphic Arts. Vocational Technical Curriculum Laboratory/Rutgers--The State University, Bldg. 4103, Kilmer Campus, New Brunswick, NJ 08902

The workbook provides language development activities for students who are being trained in one or more skills in the graphic arts industry. The topics covered include: terms of the trade, related business vocabulary, and other miscellaneous vocabulary that enters daily situations. The vocabulary is introduced through a nine-chapter story, lessons on offset lithography procedures, a variety of language development exercises, and a glossary of over 140 terms.

The Danny stories are very elementary and would be appropriate for low-functioning students. The language exercises and glossary explanations are more appropriate for higher functioning students who are beyond the entry-level point.

General Vocabulary Materials

1. Across and Down. Scope/Word Skills 1. Readability 4.0 - 6.0. Scholastic Book Service, 904 Sylvan Avenue, Englewood Cliffs, NJ 07632.

Thirty-seven crossword puzzles that teach basic phonics and build vocabulary. Dictionary and table of contents included as well as abbreviations, spelling and punctuation rules.

2. Basic Reading Vocabulary Levels A and B. Filmstrips, workbooks, teacher's edition. Psychotechnics Inc., 1900 Pickwick Avenue, Glenview, IL 60025.

Level A presents 119 words necessary for reading skill achievement of 1.9. Level B presents 149 words necessary for reading skill achievement of 2.9. Exercise I contains the word list and introduces each word for primary recognition and discussion. Words are presented in sentences structured to develop word meaning. Exercise II reintroduces each word and provides for strong sight-meaning associations and overlearning. Exercise III contains a visual tracking exercise. Exercise IV contains the answers to the visual tracking test and provides a basis for sentence writing.

3. Building Basic English Programs. Language Master - 200 prerecorded cards, Bell & Howell, Audio Visual Products Division, 7100 McCormick Road, Chicago, IL 60645.

These materials can be used with almost any grade level in a variety of subject areas. Set A provides a 200 card "Noun and Everyday Thing" set from the Word-Picture Program and a Usage Manual and blank cards. Set B contains a complete 600 card phonic series with word building and word analysis techniques. The set also includes 90 blank cards, a usage manual, and a program organizer file.

4. English Development Program Set III - Industrial Supplement. 200 pre-recorded cards; readability 4.0 - 6.0. Bell & Howell, Audio Visual Products Division, 7100 McCormick Road, Chicago, IL 60645.

A set of 200 cards for use at Junior and Senior High School levels; also for adults in literacy programs and for those learning English as a second language.

5. The Kaleidoscope Readers. Field Educational Publications. Eight different books with five copies of each and a teaching guide for each.

The series range from second grade reading level to ninth grade. Materials present high interest level material. Development of skills include: word attack, vocabulary skills, comprehension skills, study skills, and others.

6. Mast Materials. Mast Development Company, Educational Systems Division, 2212 East 12th Street, Davenport, IA 52803, Individual cassettes for Mast Programmed Reader.

Programmed materials to be used with Mast Programmed Instructor. Subject matter includes dictionary skills, vocabulary building, reading skills, 300 commas, spelling, punctuation, and English for the Spanish speaking.

7. Motorcycle Motorcross, Horses Trail Ride, Dune Buggy Rally. Bowmar, 622 Rodier Drive, Glendale, CA 91201. Two games in each area.

Games to use with the Reading Incentive Program (#10 on this list) to reinforce vocabulary. Two to six players.

8. The New Diagnostic Reading Workbooks - Looking Ahead - Grade 6B. Merrill Publishing Company, 1300 Alum Creek Drive, Columbus, OH 43216. Workbooks, 6 copies.

Checking and reinforcement of the reading skills emphasized by basal reading programs. Materials provide a progressive learning pattern as well as graduation of lessons according to difficulty. The exercises center around the following skills: fact comprehension, vocabulary development and word mastery; ability to follow directions, extracting main ideas, and independent thinking and evaluation. Materials range from first to sixth grade levels.

9. Reader's Digest New Reading Skill Builder. Reader's Digest Services, Educational Division, Pleasantville, NY 10578. Books and cassettes. Primary, Intermediate (2-6), Advanced (4-10).

Each skill builder contains controlled readability selections, that are illustrated with full color drawings and photographs as well as exercises and questions. The exercises measure comprehension and interpretation, critical and creative reading, word study, vocabulary and other skills appropriate to grade level.

10. Reading Incentive Language Program. Bowmar, 622 Rodier Drive, Glendale CA 91201. 16 kits, 10 books, 1 filmstrip, 1 cassette, and 1 teacher's guide in each kit.

A low-level vocabulary reading program based on high interest themes to involve the "turned off" student and to provide sequential skill development. Interest levels 3-12th grade. Readability 3.0-5.0.

11. Vocabulary Builder Program - Sets I, II, and III. Bell and Howell Audio Visual Products Division, 7100 McCormick Road, Chicago, IL 60645. 200 prerecorded cards in each set.

Basic, intermediate, and advanced sets may be used from the fourth grade through college level. Each set contains the words to be learned, definitions, and correct pronunciation. Alternate dictionary pronunciations are printed on the front of the card.

12. Word Puzzles and Mysteries. Scope Word Skills 2/Scholastic Book Service, 934 Sylvan Avenue, Englewood Cliffs, NJ 07632. Readability 4.0 - 6.0.

A paperbound exercise book with 20 crossword puzzles and 15 word games to develop vocabulary and reinforce spelling. Sixteen mystery stories use the close method of filling blanks to develop stronger identification of the parts of speech.

Prepared by:

Kim Gordon

Research Assistant, Project HIRE

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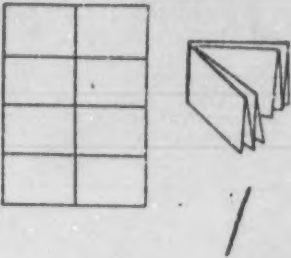
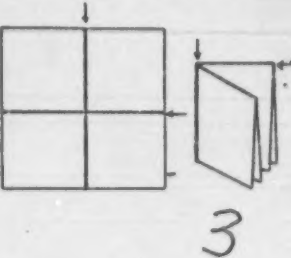
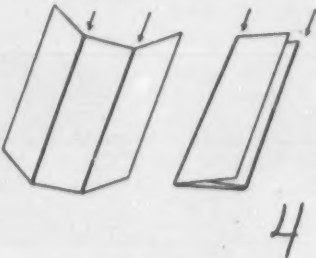
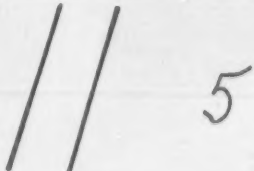
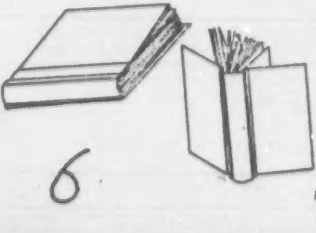
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GRAPHIC ARTS I
Checkup 1
Lesson 1

Name _____

Date _____

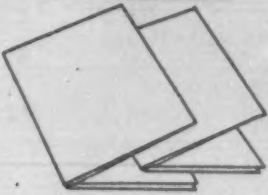
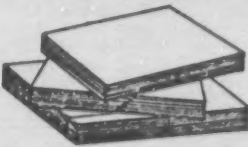
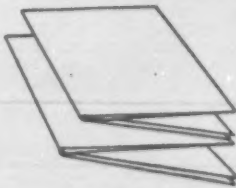
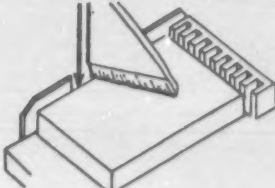
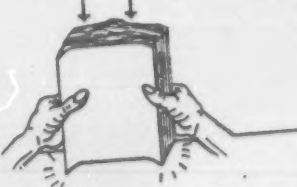
Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ bind		_____ A large sheet of paper folded several times with many printed pages.
_____ parallel line	 2	_____ Two straight lines that look like rail-road tracks.
_____ parallel letter folds	 3	_____ To fasten the pages of a book between covers.
_____ right angle folds	 4	_____ To glue one page into a signature.
_____ signature	 5	_____ Two folds in a piece of paper making parallel lines.
_____ tip-in	 6	_____ Two folds in a piece of paper that cross looking like a large plus sign.

Checkup 1 (page 2)

Name _____

Date _____

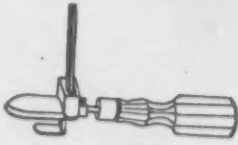
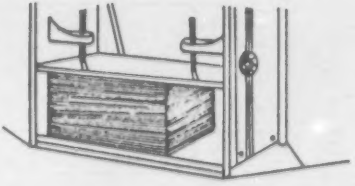
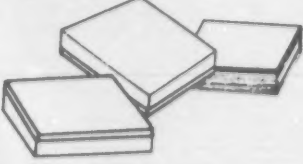
WORD	PICTURE	MEANING
_____ gather	 7	_____ To straighten the edges of a lift of paper.
_____ inserting	 8	_____ A pile of 500 sheets of paper.
_____ lift	 9	_____ To put signatures in the proper order before binding.
_____ ream	 10	_____ To cut a lift of paper to a special size.
_____ jog	 11	_____ Putting signatures inside each other.
_____ trim	 12	_____ A pile of papers, often 500 sheets of paper.

GRAPHIC ARTS I
 Checkup 2
 Lesson 2

Name _____

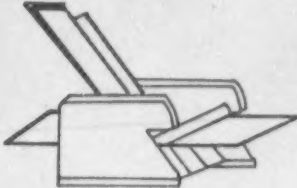
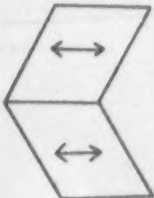
Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ padding compound	 1	_____ A machine that holds paper tightly as it is being glued together on one edge.
_____ pad	 2	_____ A tool used to measure the amount of paper put in a pad.
_____ chip board	 3	_____ A rubber glue used to glue the edges of paper together.
_____ padding press	 4	_____ A rough cardboard used as a backing on pads.
_____ pad counter or spade	 5	_____ A pile of papers that have been glued together on one edge.

Name _____

Date _____

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ padding brush	  6	_____ A machine that folds paper to any size.
_____ folding bone	 7	_____ The direction of the fibers in a sheet of paper.
_____ folder	 8	_____ A brush used to put padding compound on the edge of paper held in a padding press.
_____ grain	 9	_____ To go in the same direction as the fibers in a sheet of paper. Paper folds smoothly "with the grain."
_____ with the grain	 10	_____ A hand tool used to make tight folds on paper.

Name _____

Date _____

WORD

PICTURE

MEANING

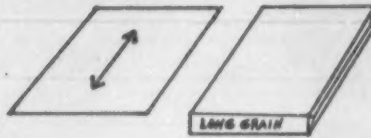
_____ long grain



11

Not in the same same direction as the lines in a sheet of paper. Paper does not fold smoothly this way.

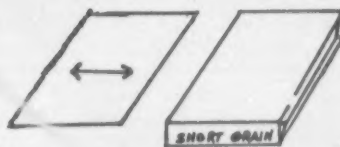
_____ short grain



12

The grain in a sheet of paper that goes across the page from side to side

_____ against the



13

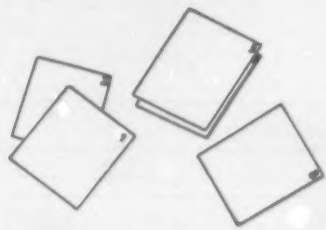
The grain in a sheet of paper that goes from the top to the bottom of the page.

GRAPHIC ARTS I
Checkup 3
Lesson 3

Name _____

Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ dummy	 1	_____ A thin piece of wire used to fasten pages.
_____ collate	 2	_____ To put air between sheets of paper so they do not stick together.
_____ fan	 3	_____ A rough plan for a book showing the order of the pages.
_____ stitch	 4	_____ A machine used to bind books.
_____ stitcher	 5	_____ To put the pages in the right order before binding.
	 5	

Name _____

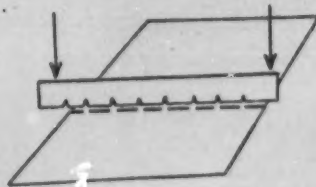
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WORD

PICTURE

MEANING

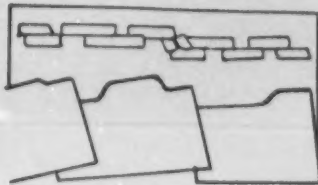
_____ saddle stitch



6

_____ To staple sheets together on the left side of the paper.

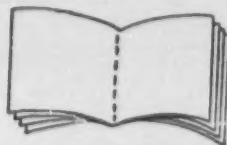
_____ side stitch



7

_____ To fasten pages of a small book by stitching through the middle fold of the sheets.

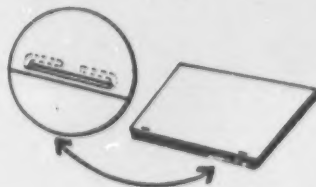
_____ perforate



8

_____ To cut paper into shapes.

_____ die cut



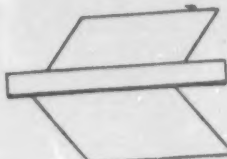
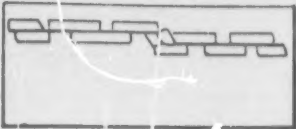
9

_____ To punch holes in paper.

Checkup 3 (page 3)

Name _____

Date _____

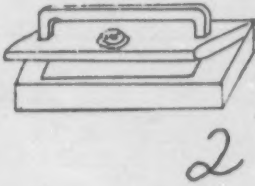
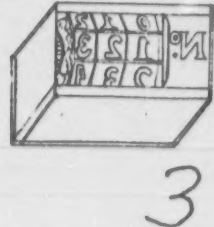
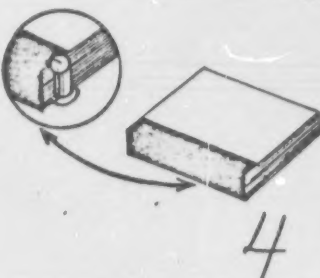
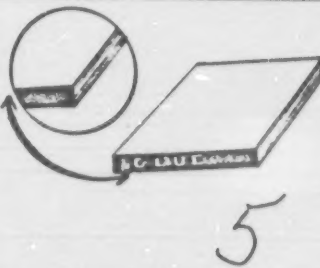
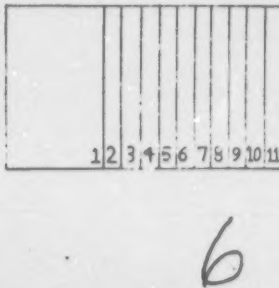
<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ steel rule die	 10	_____ To put raised letters on the surface of paper without ink.
_____ emboss	 11	_____ A tool used to die cut paper.
_____ score	 12	_____ To put a mark into the surface of paper making it easy to fold.

GRAPHIC ARTS I
 Checkup 4
 Lesson 4

Name _____

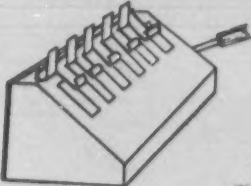
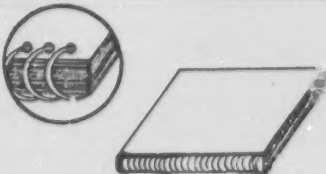
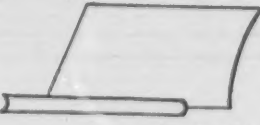
Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ laminate		_____ A machine that prints numbers in order.
_____ paginate		_____ When pages are held together only with glue.
_____ numbering machine		_____ A special tool that puts holes in paper.
_____ binding post		_____ To number pages.
_____ hollow drill		_____ A brass post used to hold sheets of paper in a notebook.
_____ perfect binding		_____ To put a thin, clear coating on both sides of a printed sheet.

Name _____

Date _____

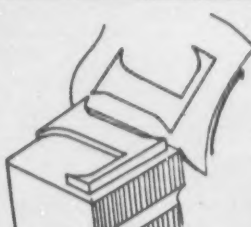
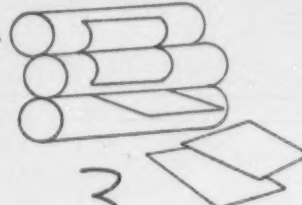
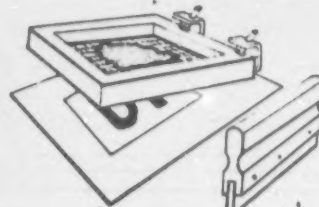
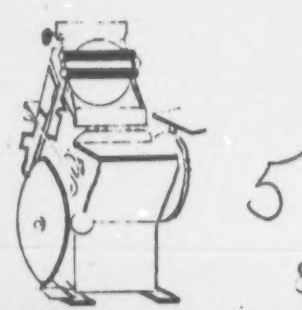
WORD	PICTURE	MEANING
_____ plastic comb	 7	_____ A wire coil used to bind paper. Extra pages cannot be added after binding.
_____ plastic comb punch	 8	_____ A notebook with rings that open so pages can be put in or taken out.
_____ plastic comb binder	 9	_____ A row of fingers that go through holes in paper forming a circle to hold the pages together.
_____ ring binder	 10	_____ A folded plastic strip that slides along the edge of papers.
_____ spiral binding	 11	_____ A machine that puts special holes in paper for binding with a plastic comb.
_____ friction binding	 12	_____ A machine used to hold open the fingers on a plastic comb.

GRAPHIC ARTS II
Checkup 5
Lesson 5

Name _____

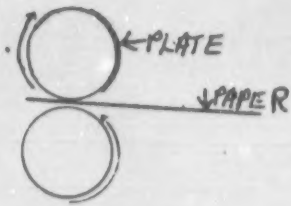
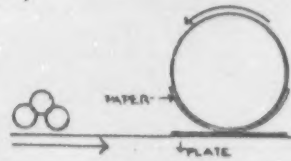
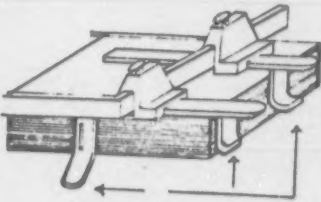
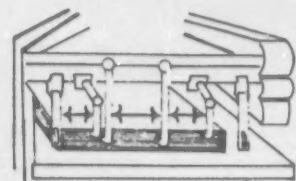
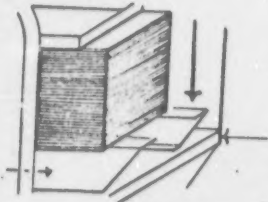
Date _____

Put the number of the picture next to the word AND next to the meaning. The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ cylinder	 1	_____ A press using raised letters with ink on them to print. It is also called "crash" printing.
_____ platen press	 2	_____ This looks like a big can.
_____ offset press	 3	_____ A press that uses ink and water to print.
_____ screen printing	 4	_____ A way of printing where ink is pushed through holes in a screen.
_____ letterpress	 5	_____ A press that prints by pressing paper between two flat surfaces.

Name _____

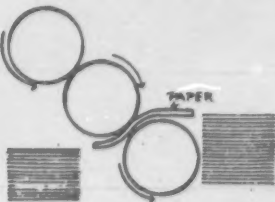
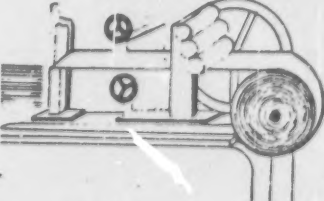
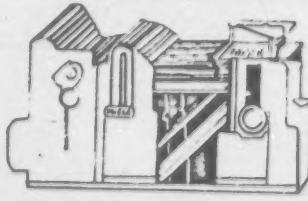
Date _____

WORD	PICTURE	MEANING
_____ rotary press	 6	_____ A press that prints by pressing paper between a flat surface and a cylinder.
_____ pile guides		
_____ feed table	 7	_____ The part of the printing press that picks up sheets of paper from a pile and slides them into the press.
_____ flat-bed cylinder press	 8	_____ A press that prints by pressing paper between two cylinders.
_____ feeder	 9	_____ Bars that hold the pile of paper straight in the feeder. _____ Part of the feeder that holds the paper that is to be fed into the press.
	 10	

Checkup 5 (page 3)

Name _____

Date _____

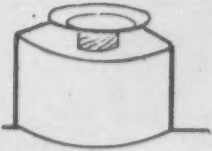
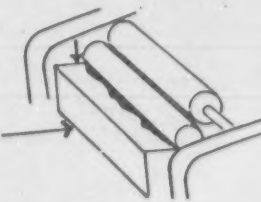
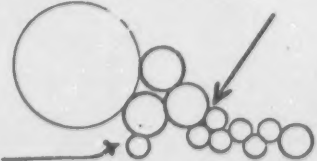
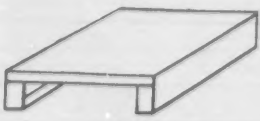
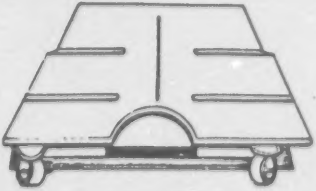
WORD	PICTURE	MEANING
_____ web-fed press		_____ A press that prints one sheet of paper at a time. It prints on one side of the sheet in one color.
_____ sheet-fed press	11	_____ A press that feeds paper into the press from a big roll.
_____ stream-fed press		_____ A press that feeds the paper so that the edges of the paper lie on top of each other.
_____ single color sheet-fed press	12	_____ A press that feeds paper into the press one sheet at a time.
		
	13	
		
	14	

GRAPHIC ARTS II
 Checkup 6
 Lesson 6

Name _____

Date _____

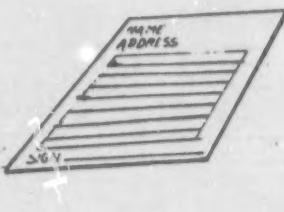
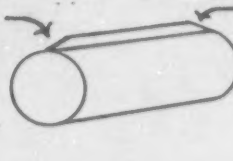
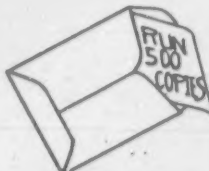
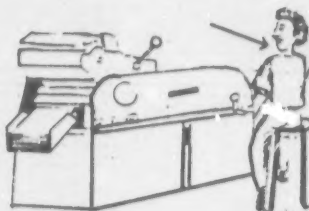
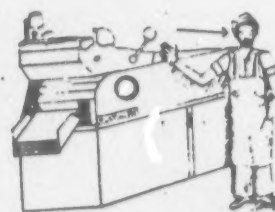
Put the number of the picture next to the word AND next to the meaning.
 The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ washup	 1	_____ A part of the press that stores ink and feeds it to the inking system.
_____ ink fountain	 2	_____ To clean the ink fountain and rollers of a press.
_____ skid	 3	_____ A wooden platform that paper is stacked upon.
_____ dolly	 4	_____ A special liquid that makes ink watery so it can be cleaned from the press.
_____ inking system	 5	_____ A platform on wheels that holds the sheets of paper as they come out of the press.
_____ washup solution	 6	_____ The part of the press that feeds the ink.

Checkup 6 (page 2)

Name _____

Date _____

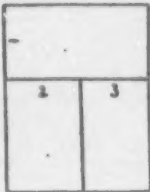
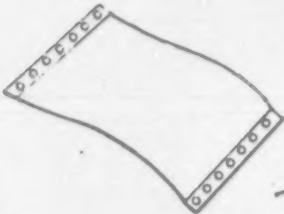
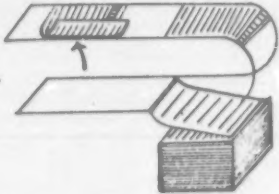
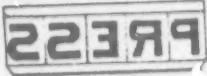
WORD	PICTURE	MEANING
_____ washup attachment		_____ Anything that is to be printed on a printing press.
_____ run		_____ A beginner or learner/
_____ job ticket		_____ The number of copies to be printed for a certain job.
_____ apprentice		_____ A printer who has spent many years learning his trade.
_____ copy		_____ A folder that gives all the directions needed to do a printing job.
_____ journeyman		_____ A tool used to clean the inking system on a press.

GRAPHIC ARTS II
 Checkup 7
 Lesson 7

Name _____

Date _____

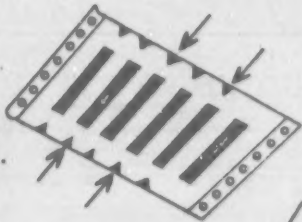
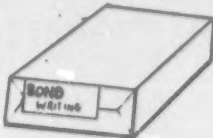
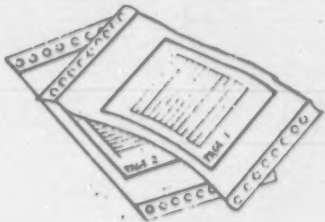
Put the number of the picture next to the word AND next to the meaning.
 The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ printing plate	 1	_____ To print on the back side of a sheet that has already been printed on the front side.
_____ imposition	 2	_____ The part of the press that contains the material that is to be printed.
_____ type form	 3	_____ A metal frame that holds the type form in the letterpress.
_____ backup	 4	_____ To arrange the pages to be printed on the signature so that the page numbers are in the right order when the signature is folded.
_____ chase	 5	_____ To put the letters together to make the words you want to print.

Checkup 7 (page 2)

Name _____

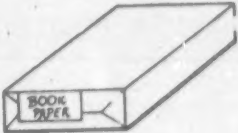
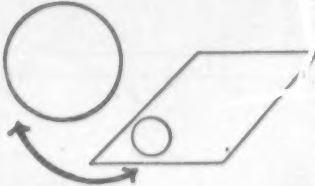
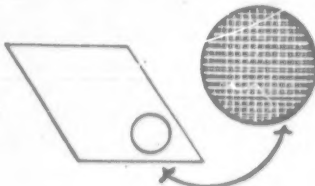
Date _____

WORD	PICTURE	MEANING
_____ bond paper	 6	_____ A heavy paper used to cover the outside of catalogs and booklets.
_____ step and repeat imposition	 7	_____ To put many small copies of the same thing on one large sheet.
_____ sheetwise imposition	 8	_____ A very good paper used for writing and printing.
_____ plate cylinder	 9	_____ The printing plate goes on this roller on the press.
_____ cover paper	 10	_____ To print both sides of a page with one printing plate.
_____ work and turn imposition	 11	_____ To print each side of a sheet using a separate printing plate.

Checkup 7 (page 3)

Name _____

Date _____

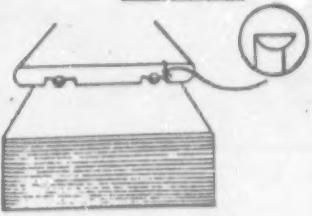
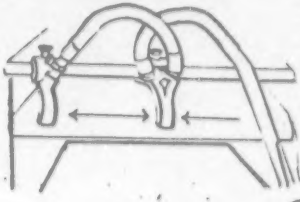
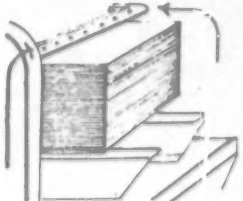
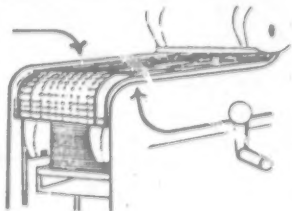
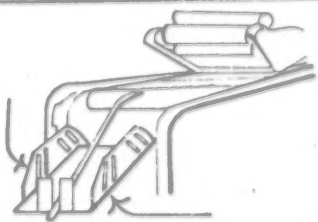
WORD	PICTURE	MEANING
_____ watermark	 12	_____ The rough side of the paper that does not print as well as the felt side.
_____ wire side	 13	_____ A design pressed into some kinds of paper by the paper factory.
_____ book paper	 14	_____ The smoothest side of the paper. This is the best printing surface.
_____ coated paper	 15	_____ A high-quality paper with a smooth covering. This kind of paper holds color and prints well.
_____ felt side	 16	_____ A paper used for printing schoolbooks.

GRAPHIC ARTS III
 Checkup 8
 Lesson 8

Name _____

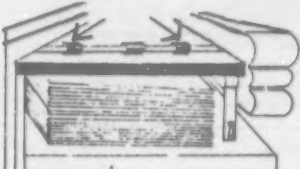
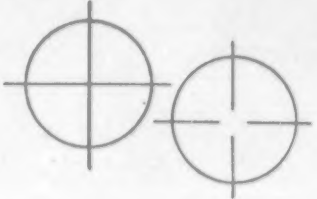
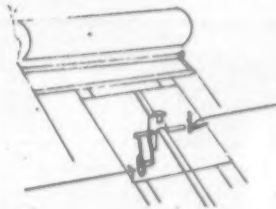
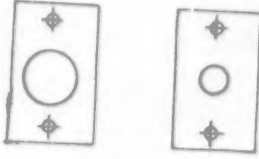
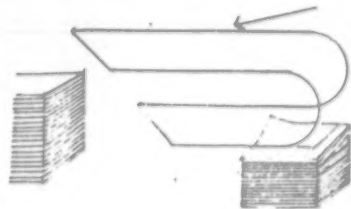
Date _____

Put the number of the picture next to the word AND next to the meaning.
 The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ suction feet	 1	_____ A way sheets of paper are carried out of the press. Metal fingers on an endless chain grab each sheet and drop it in a pile.
_____ sheet separators	 2	_____ A metal bar that rests on the top of the paper in the feeder. It controls the height of the pile.
_____ bail bar	 3	_____ Sucking tubes that pick up sheets of paper and move them from the feeder into the press.
_____ chute delivery	 4	_____ Thin metal fingers that let only one sheet of paper enter the press at a time. They are sometimes called "cat's whiskers."
_____ chain delivery	 5	_____ A way sheets of paper come out of the press. Small wheels shoot each sheet out into a tray.

Name _____

Date _____

WORD	PICTURE	MEANING
_____ skid rollers	 6	_____ Marks placed on material to be printed that help the press operator put the printed copy in the right place.
_____ pullout rollers	 7	_____ A table that connects the feeder and the printing unit. The sheet is put in place here before it goes into the printing unit.
_____ register table	 8	_____ Small wheels that help move sheets down the feed table.
_____ register	 9	_____ All sheets are put in exactly the same spot when they are printed.
_____ register marks	 95/10	_____ Rubber wheels that move the sheet from the suction feet to the register table.

GRAPHIC ARTS III

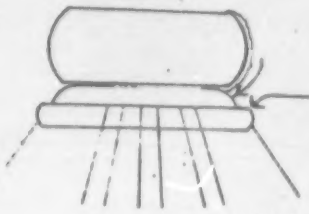
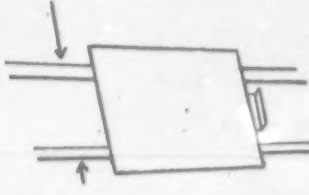
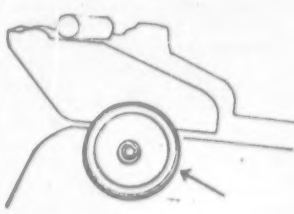
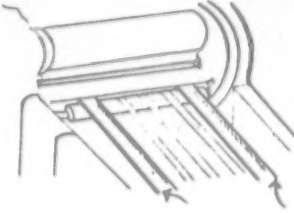
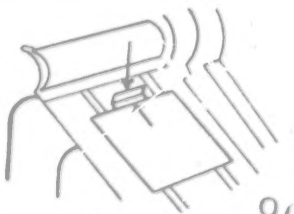
Checkup 9

Lesson 9

Name _____

Date _____

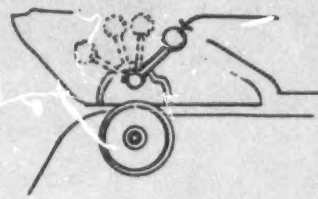
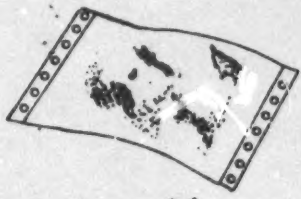
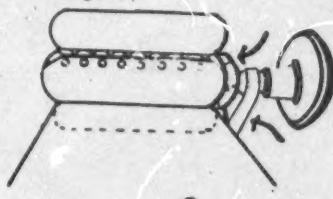
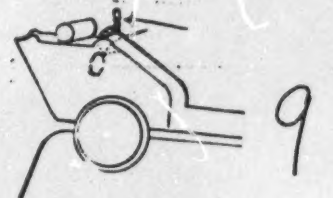
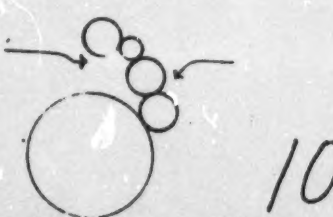
Put the number of the picture next to the word AND next to the meaning.
The first one is done for you.

<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ handwheel	 1	_____ Wheels that move the sheet into the printing unit after the headstops drop out of the way.
_____ feed rollers	 2	_____ A small wheel used to turn the press by hand.
_____ headstops	 3	_____ Cloth belts that carry the paper across the feed table to the printing unit.
_____ retaining strips	 4	_____ Thin metal strips that hold the sheet onto the conveyor tapes.
_____ conveyor tapes	 5	_____ Small metal fingers at the end of the feed table. They stop the sheet before it goes into the printing unit.

Checkup 9 (page 2)

Name _____

Date _____

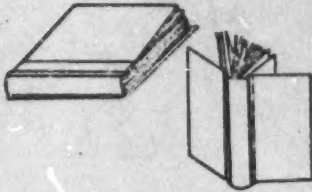
<u>WORD</u>	<u>PICTURE</u>	<u>MEANING</u>
_____ cleaning sheets	 6	_____ A tool used to move the printing cylinder.
_____ built-in wrench	 7	_____ Sheets of paper used to clean the press without removing the ink rollers.
_____ single lever control	 8	_____ A set of rollers covered with cloth that feeds water to the printing plate.
_____ night latch	 9	_____ A lever that works the night latch, ink, dampening system, and feed control.
_____ dampening system	 10 97	_____ A lever you pull when the printing press is shut down. It keeps the rollers from resting against each other tightly.

GRAPHIC ARTS I
Activity 1
Lesson 1

Name _____

Date _____

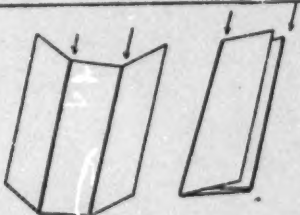
Match the picture and the meaning. Put the right number on the line beside the meaning.



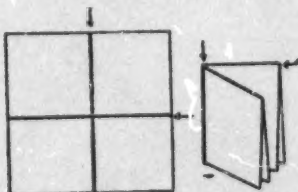
1. bind



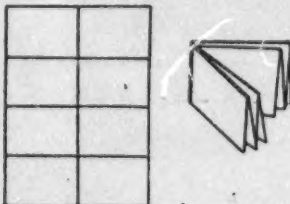
2. parallel line



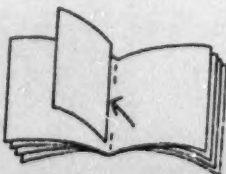
3. parallel letter folds



4. right angle folds



5. signature



6. tip-in

_____ A large sheet of paper folded several times with many printed pages.

_____ Two straight lines that look like railroad tracks.

_____ To fasten the pages of a book between covers.

_____ To glue one page into a signature.

_____ Two folds in a piece of paper making parallel lines.

_____ Two folds in a piece of paper that cross looking like a large plus sign.

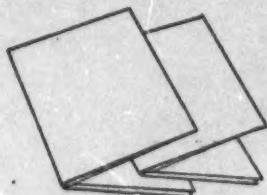
Name _____

Date _____



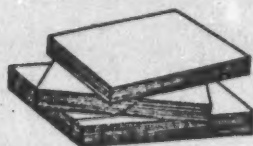
7. gather

_____ To straighten the edges of a lift of paper.



8. inserting

_____ A pile of 500 sheets of paper.



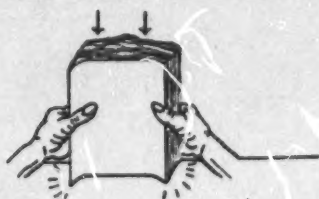
9. lift

_____ To put signatures in the proper order before binding.



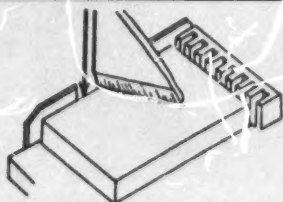
10. ream

_____ To cut a lift of paper to a special size.



11. jog

_____ Putting signatures inside each other.



12. trim

_____ A pile of papers, often 500 sheets of paper.

GRAPHIC ARTS I
Activity 2
Lesson 2

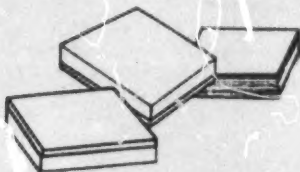
Name _____

Date _____

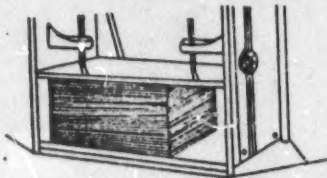
Match the picture and the meaning. Put the right number on the line beside the meaning.



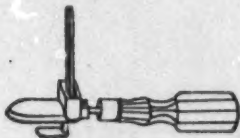
1. padding compound



2. chip board



3. padding press



4. pad counter or spade

_____ A machine that holds paper tightly as it is being glued together on one edge.

_____ A tool used to measure the amount of paper put in a pad.

_____ A rubber glue used to glue the edges of paper together.

_____ A rough cardboard used as a backing on pads.

Activity 2 (page 2)

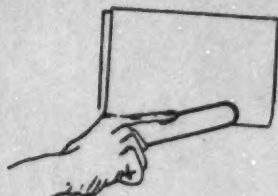
Name _____

Date _____



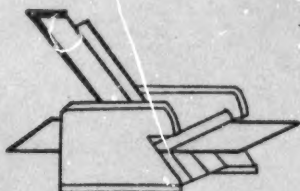
5. padding brush

_____ A machine that folds paper to any size.



6. folding bone

_____ The direction of the fibers in a sheet of paper.



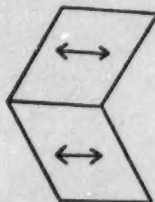
7. folder

_____ A brush used to put padding compound on the edge of paper held in a padding press.



8. grain

_____ To go in the same direction as the fibers in a sheet of paper. Paper folds smoothly "with the grain."

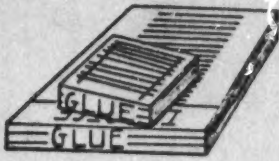


9. with the grain

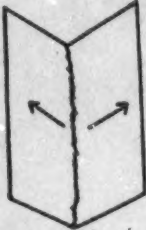
_____ A hand tool used to make tight folds on paper.

Name _____

Date _____



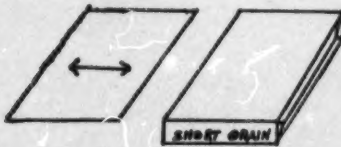
10. pad



11. against the grain



12. long grain



13. short grain

Not in the same direction as the lines in a sheet of paper. Paper does not fold smoothly folded this way.

The grain in a sheet of paper that goes from the top to the bottom of the page.

The grain in a sheet of paper that goes across the page from side to side.

A pile of papers that have been glued together on one edge.

GRAPHIC ARTS I
Activity 3
Lesson 3

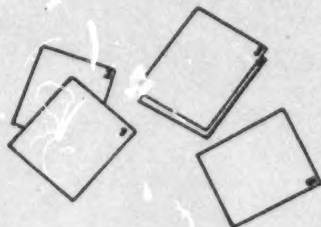
Name _____

Date _____

Match the picture and the meaning. Put the right number on the line beside the meaning.



1. dummy



2. collate



3. fan



4. stitch



5. stitcher

_____ A thin piece of wire used to fasten pages.

_____ To put air between sheets of paper so they do not stick together.

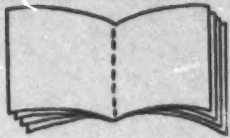
_____ A rough plan for a book showing the order of the pages.

_____ A machine used to bind books.

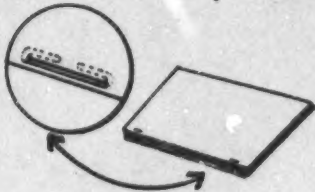
_____ To put the pages in the right order before binding.

Name _____

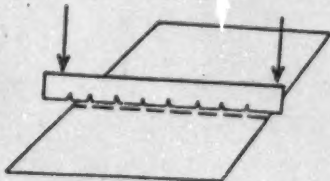
Date _____



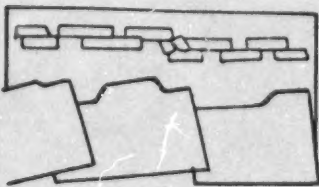
6. saddle stitch



7. side stitch



8. perforate



9. die cut

_____ To staple sheets together on the left side of the paper.

_____ To fasten pages of a small book by stitching through the middle fold of the sheets.

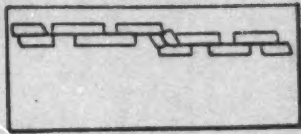
_____ To cut paper into shapes.

_____ To punch holes in paper.

Activity 3 (page 3)

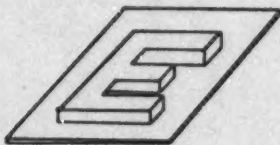
Name _____

Date _____



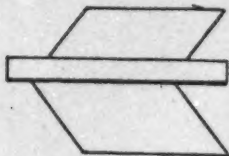
10. steel rule die

_____ To put raised letters on the surface of paper without ink.



11. emboss

_____ A tool used to die cut paper.



12. score

_____ To put a mark into the surface of paper making it easy to fold.

GRAPHIC ARTS I
Activity 4
Lesson 4

Name _____

Date _____

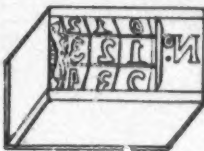
Match the picture and the meaning. Put the right number on the line beside the meaning.



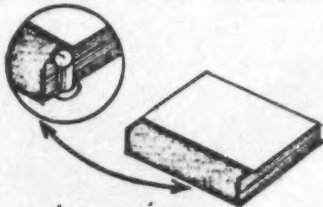
1. laminate



2. paginate



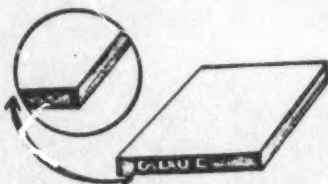
3. numbering machine



4. binding post



5. hollow drill



6. perfect binding

_____ A machine that prints numbers in order.

_____ When pages are held together only with glue.

_____ A special tool that puts holes in paper.

_____ To number pages.

_____ A brass post used to hold sheets of paper in a notebook.

_____ To put a thin, clear coating on both sides of a printed sheet.

Activity 4 (page 2)

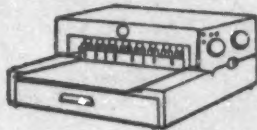
Name _____

Date _____



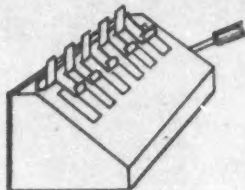
7. plastic comb

_____ A wire coil used to bind paper. Extra pages cannot be added after binding.



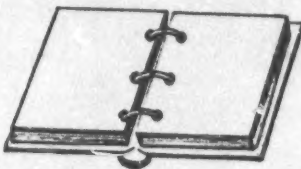
8. plastic comb punch

_____ A notebook with rings that open so pages can be put in or taken out.



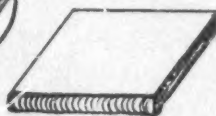
9. plastic comb binder

_____ A row of fingers that go through holes in paper forming a circle to hold the pages together.



10. ring binder

_____ A folded plastic strip that slides along the edge of papers.



11. spiral binding

_____ A machine that puts special holes in paper for binding with a plastic comb.



12. friction binding

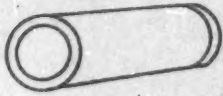
_____ A machine used to hold open the fingers on a plastic comb.

GRAPHIC ARTS II
Activity 5
Lesson 5

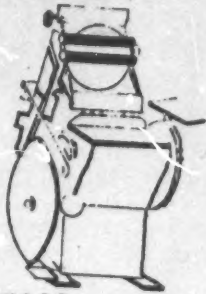
Name _____

Date _____

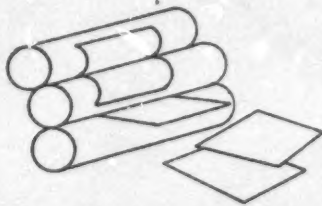
Match the picture and the meaning. Put the right number on the line beside the meaning.



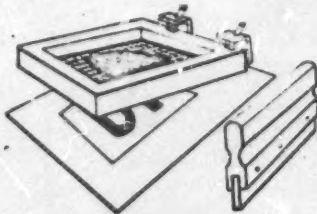
1. cylinder



2. platen press



3. offset press



4. screen printing



5. letterpress

_____ A press using raised letters with ink on them to print. It is also called "crash" printing.

_____ This looks like a big can.

_____ A press that uses ink and water to print.

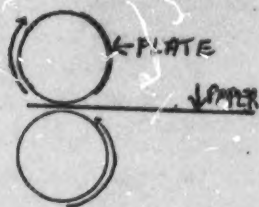
_____ A way of printing where ink is pushed through holes in a screen.

_____ A press that prints by pressing paper between two flat surfaces.

Activity 5 (page 2)

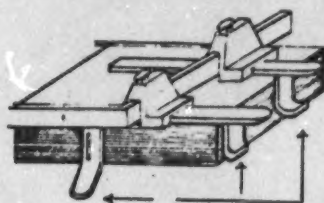
Name _____

Date _____



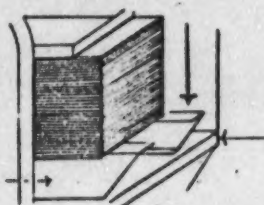
6. rotary press

_____ A press that prints by pressing paper between a flat surface and a cylinder.



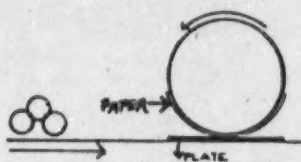
7. pile guides

_____ The part of the printing press that picks up sheets of paper from a pile and slides them into the press.



8. feed table

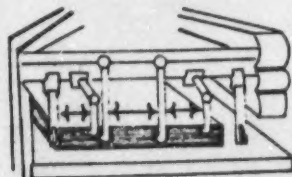
_____ A press that prints by pressing paper between two cylinders.



9. flat-bed cylinder press

_____ Bars that hold the pile of paper straight in the feeder.

_____ Part of the feeder that holds the paper that is to be fed into the press.

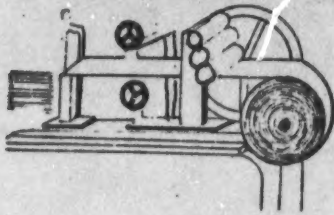


10. feeder

Activity 5 (page 3)

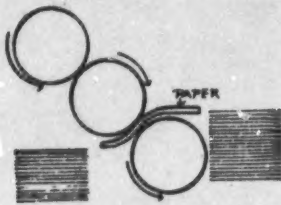
Name _____

Date _____



11. web-fed press

_____ A press that prints one sheet of paper at a time. It prints on one side of the sheet in one color.



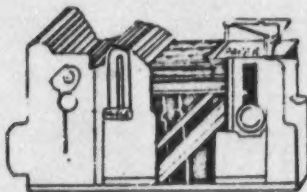
12. sheet-fed press

_____ A press that feeds paper into the press from a big roll.



13. stream-fed press

_____ A press that feeds the paper so that the edges of the paper lie on top of each other.



14. single color sheet-fed press

_____ A press that feeds paper into the press one sheet at a time.

GRAPHIC ARTS II
Activity 6
Lesson 6

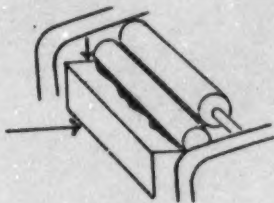
Name _____

Date _____

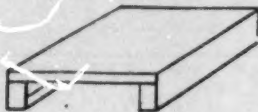
Match the picture and the meaning. Put the right number on the line beside the meaning.



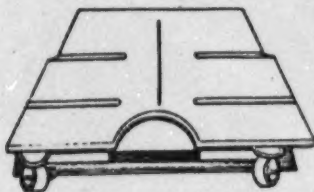
1. washup



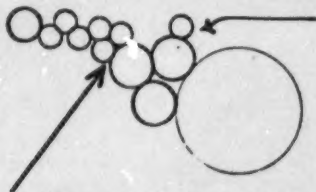
2. ink fountain



3. skid



4. dolly



5. inking system



6. washup solution

_____ A part of the press that stores ink and feeds it to the inking system.

_____ To clean the ink fountain and rollers of a press.

_____ A wooden platform that paper is stacked upon.

_____ A special liquid that makes ink watery so it can be cleaned from the press.

_____ A platform on wheels that holds the sheets of paper as they come out of the press.

_____ The part of the press that feeds the ink.

Activity 6 (page 2)

Name _____

Date _____



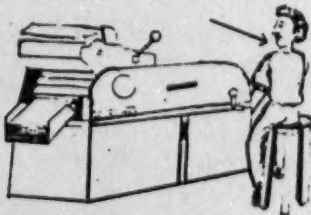
7. washup attachment



8. run



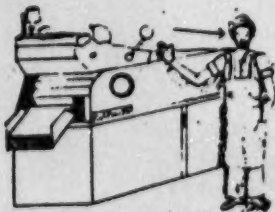
9. job ticket



10. apprentice



11. copy



12. journeyman

Anything that is to be printed on a printing press.

A beginner or learner.

The number of copies to be printed for a certain job.

A printer who has spent many years learning his trade.

A folder that gives all the directions needed to do a printing job.

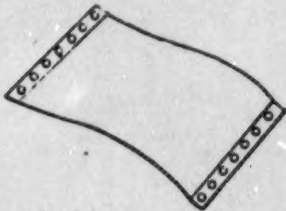
A tool used to clean the inking system on a press.

GRAPHIC ARTS II
Activity 7
Lesson 7

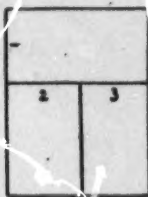
Name _____

Date _____

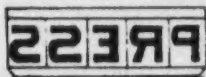
Match the picture and the meaning. Put the right number on the line beside the meaning.



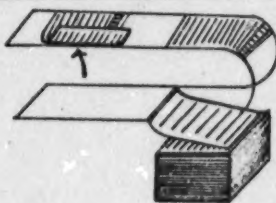
1. printing plate



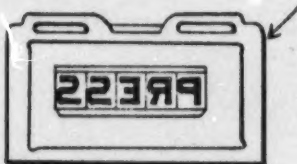
2. imposition



3. type form



4. backup



5. chase

_____ To print on the back side of a sheet that has already been printed on the front side.

_____ The part of the press that contains the material that is to be printed.

_____ A metal frame that holds the type form in the letterpress.

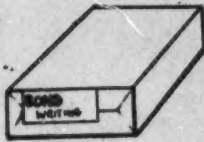
_____ To arrange the pages to be printed on the signature so that the page numbers are in the right order when the signature is folded.

_____ To put the letters together to make the words you want to print.

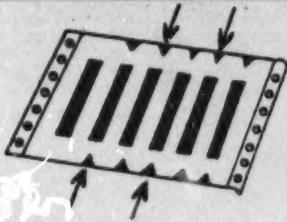
Activity 7 (page 2)

Name _____

Date _____



6. bond paper



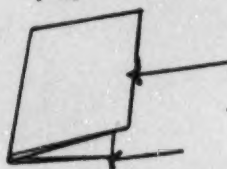
7. step and repeat imposition



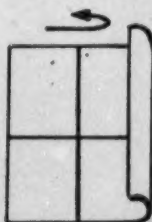
8. sheetwise imposition



9. plate cylinder



10. cover paper



11. work and turn imposition

_____ A heavy paper used to cover the outside of catalogs and booklets.

_____ To put many small copies of the same thing on one large sheet.

_____ A very good paper used for writing and printing.

_____ The printing plate goes on this roller on the press.

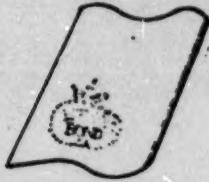
_____ To print both sides of a page with one printing plate.

_____ To print each side of a sheet using a separate printing plate.

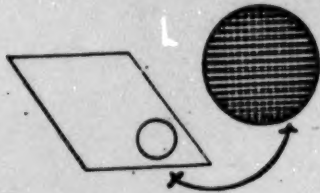
Activity 7 (page 3)

Name _____

Date _____



12. watermark



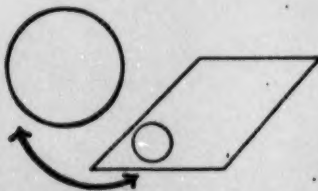
13. wire side



14. book paper



15. coated paper



16. felt side

_____ The rough side of the paper that does not print as well as the felt side.

_____ A design pressed into some kinds of paper by the paper factory.

_____ The smoothest side of the paper. This is the best printing surface.

_____ A high-quality paper with a smooth covering. This kind of paper holds color and prints well.

_____ A paper used for printing schoolbooks.

GRAPHIC ARTS III
Activity 8
Lesson 8

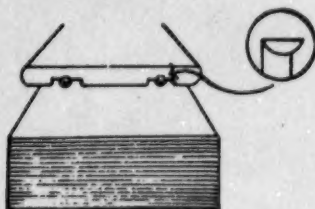
Name _____

Date _____

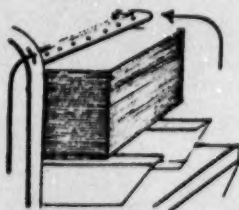
Match the picture and the meaning. Put the right number on the line beside the meaning.



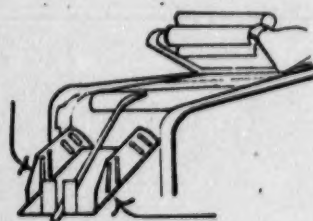
1. suction feet



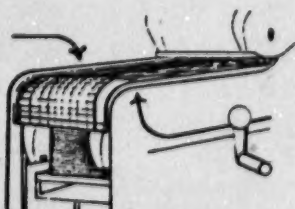
2. sheet separators



3. bail bar



4. chute delivery



5. chain delivery

_____ A way sheets of paper are carried out of the press. Metal fingers on an endless chain grab each sheet and drop it in a pile.

_____ A metal bar that rests on the top of the paper in the feeder. It controls the height of the pile.

_____ Sucking tubes that pick up sheets of paper and move them from the feeder into the press.

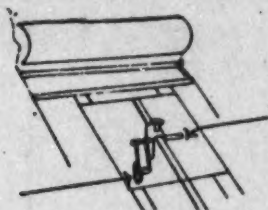
_____ Thin metal fingers that let only one sheet of paper enter the press at a time. They are sometimes called "cat's whiskers."

_____ A way sheets of paper come out of the press. Small wheels shoot each sheet out into a tray.

Activity 8 (page 2)

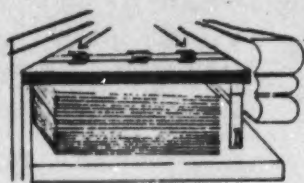
Name _____

Date _____



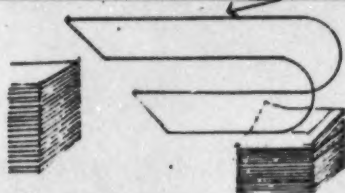
6. skid rollers

_____ Marks placed on material to be printed that help the press operator put the printed copy in the right place.



7. pullout rollers

_____ A table that connects the feeder and the printing unit. The sheet is put in place here before it goes into the printing unit.



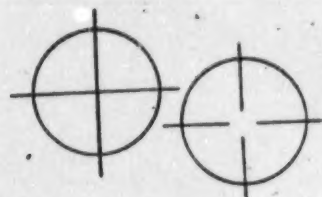
8. register table

_____ Small wheels that help move sheets down the feed table.



9. register

_____ All sheets are put in exactly the same spot when they are printed.



10. register marks

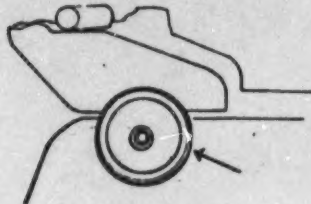
_____ Rubber wheels that move the sheet from the suction feet to the register table.

GRAPHIC ARTS III
Activity 9
Lesson 9

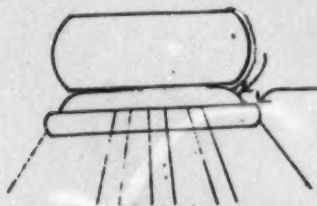
Name _____

Date _____

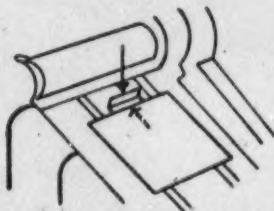
Match the picture and the meaning. Put the right number on the line beside the meaning.



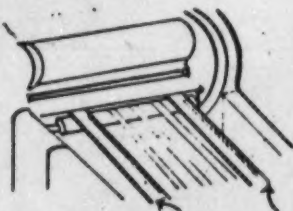
1. handwheel



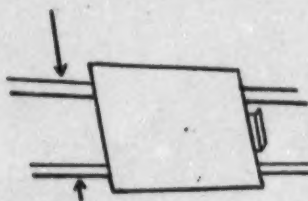
2. feed rollers



3. headstops



4. retaining strips



5. conveyor tapes

_____ Wheels that move the sheet into the printing unit after the headstops drop out of the way.

_____ A small wheel used to turn the press by hand.

_____ Thin metal strips that hold the sheet onto the conveyor tapes.

_____ Cloth belts that carry the paper across the feed table to the printing unit.

_____ Small metal fingers at the end of the feed table. They stop the sheet before it goes into the printing unit.

Activity 9 (page 2)

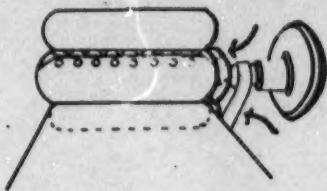
Name _____

Date _____



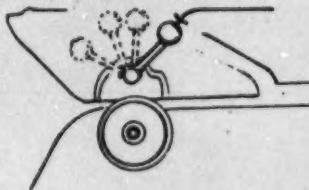
6. cleaning sheets

_____ A tool used to move the printing cylinder.



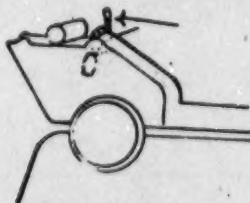
7. built-in wrench

_____ Sheets of paper used to clean the press without removing the ink rollers.



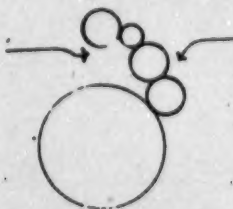
8. single lever control

_____ A set of rollers covered with cloth that feeds water to the printing plate.



9. night latch

_____ A lever you pull when the printing press is shut down. It keeps the rollers from resting against each other tightly.



10. dampening system

_____ A lever that works the night latch, ink, dampening system, and feed control.